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Responding to a widely expressed discontent about college teaching shared by students, faculty and administrators, representatives of national professional and higher educational associations formed a committee to study means of revitalizing and reorienting the instruction. In his Introduction, Russell M. Cooper notes the impossibility of prescribing any single method of improving teaching and calls for reflection and self-criticism by the teacher. In "Earning and Learning by the Hour" Stanford C. Ericksen is concerned with theories and methods characteristic of effective teaching in all disciplines. He discusses the many practical aspects (including technical aids) as well as the evaluative problems of the art of teaching. The complex pressures shaping the life of the college professor, and his place and responsibilities in the academic community are dealt with by Lewis B. Mayhew in "Finding the Levers: The Organization of the Profession." Harold L. Hodgkinson, in "Finding the Levers: The Folkways and Mores of Campus Governance", also deals with the professor's role in discussing how the faculty member can learn to understand and participate in the administrative structure of his university. An extensive bibliography is included. (JS)

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THE QUEST FOR RELEVANCE

Effective College Teaching

VOLUME IV

PRACTICAL CONCERNS FOR ALL COLLEGE TEACHERS

AMERICAN ASSOCIATION FOR HIGHER EDUCATION March 1969

U. S. DEPARTMENT OF
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THE QUEST FOR RELEVANCE

Effective College Teaching

FOUR VOLUMES

VOLUME IV

PRACTICAL CONCERNS FOR ALL COLLEGE TEACHERS

Prepared by the

AMERICAN ASSOCIATION FOR HIGHER EDUCATION

Washington, D. C.

March 1969

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PREFACE

This volume grows out of a deepening concern of leaders among national professional societies and members of the American Association for Higher Education (AAHE) for improving quality and increasing relevance in college teaching. Responding to a widely expressed discontent among students and unease within the teaching profession, the AAHE assumed responsibility for calling together representatives from professional organizations to discuss the means of revitalizing and reorienting instruction in colleges and universities.

These representatives, under the chairmanship of Russell M. Cooper, Dean of Liberal Arts, University of South Florida, formed the Joint Committee on College Teaching (JCOT). The committee has included representatives from the following professional associations:

American Association for the Advancement of Science
American Association for Higher Education
American Association of Junior Colleges
American Chemical Society
American Council on Education
American Council of Learned Societies
American Economic Association
American Historical Association
American Institute of Biological Sciences
American Institute of Physics
American Political Science Association
American Psychological Association
College English Association
Conference Board of the Mathematical Sciences
Modern Language Association of America
U. S. Office of Education

The Advisory Committee for the study, listed below, was drawn largely from representatives of that group of organizations.

The completion of the book envisioned by the Joint Committee on Teaching has been made possible by a grant from the U. S. Office of Education with the AAHE serving as administrative and fiscal agent.

The contributors to this book were selected because of their vivid conceptions and demonstrable skills in teaching. Collectively, they do not offer a comprehensive representation of all disciplines. In fact, as originally divergent views on the rationale and scope of the book coalesced into a consensus, a clearly interdisciplinary overtone developed despite a format suggesting otherwise.

This work is divided into four volumes, but all volumes use the same preface, introduction, and general bibliography. The first three examine college teaching as perceived by some outstanding teachers representing the humanities (Volume I), the sciences (Volume II), and the social sciences (Volume III). In each volume an outstanding teacher discusses an entire area of study. Additional teachers of note, with full freedom to take an interdisciplinary stance, discuss the area with particular reference to their own disciplines. Each contributor to the first three volumes was asked to examine current trends in teaching in his area or discipline, to offer a critical review of the principal methods in use, and to provide pertinent bibliographical references.

The fourth volume treats, first, of matters of instruction which may be regarded as characteristic of effective teaching in all disciplines, with special attention to modern teaching aids (increasingly regarded not as incidental adjuncts but as essential to optimal learning), and the evaluative aspects of the teaching-learning process. This volume treats, second, of matters pertaining to the place of the teacher in his university and his community and of his responsibilities to them. It discusses the manner in which universities are organized administratively and in general terms discusses the regulations, communications and practices which are found on campus.

This book is intended for independent reading and as a basis for seminar and workshop discussion. Selected bibliographies are provided to encourage further exploration of knowledge of the art and craft of teaching. The book is designed not merely to communicate the personal experience of the authors but also to reflect the range of research and literature on college teaching.

Improving college teaching is certainly not a neglected subject. A long list of publications could be given, and many are included in the bibliography. The AHE (now AAHE) itself published "New Perspectives on Teaching the Disciplines," in Current Issues of Higher Education, 1962. It contains papers presented at AAHE's 17th National Conference on the teaching of the social sciences, geography, English, fine arts, and other subjects. Other publications that might be mentioned include these:

Wilbert McKeachie's Teaching Tips is a guidebook for the beginning college teacher (George Wahr Publishing Co. 1965).

Improving College and University Teaching, the quarterly edited by Delmer M. Goode for many years has delivered a broad range of short articles.

Improving College Teaching, edited by Calvin B. T. Lee and written by teachers and administrators, covers a wide variety of subjects and innovations.

The Importance of Teaching: A Memorandum to the New Teacher, is a guide to self-examination for those entering the profession.

Teaching in a Junior College, by Roger H. Garrison, deals with problems peculiar to junior and other kinds of 2-year colleges.

The Graduate Student as Teacher, prepared by Vincent Nowles, Kenneth Clark, and Miriam Rock reports a project at the University of Rochester.

Little in the literature on college teaching is prepared from the standpoint of the disciplines. Much that has been produced is general. It is to this deficiency that the present work is directed. At a period when it may seem perilous to write anything concerning higher education in the United States, the contributions in this work have been assembled with the conviction that all dedicated teachers are seeking ways of improving their teaching and of providing relevant subject matter as they challenge their students. It is the hope of those responsible for the work that it will be helpful to all college teachers and especially to those entering the profession.

Robert G. Bone
Project Director

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Bruce Dearing, State University of New York (SUNY) at Binghampton
Maxwell H. Goldberg, Pennsylvania State University
Harold L. Hodgkinson, University of California, Berkeley
Arthur H. Livermore, American Association for the Advancement of Science
Paul L. Ward, American Historical Association
Winslow R. Hatch, Division of Higher Education Research, U. S. Office of Education.

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INTRODUCTION: THE COLLEGE TEACHER TODAY

by Russell Cooper*

> "I will do such things, -
> What they are, yet I know not; but they shall be
> The terrors of the earth! -- King Lear

At a time when inarticulate fury and a deep sense of betrayal are being translated into irrational violence on American campuses, it behooves the teaching profession to consider seriously the inadequacies and lapses of which it stands accused. Under the best of circumstances, teachers should be eager and active in searching out ways to improve their performance. Now, more than ever before, the public at large and the young in particular pose penetrating questions for institutions of higher learning. Teachers are called upon to defend the relevance of the subject matter they offer, to adopt new styles and techniques in teaching an ever-increasing number of students with varying backgrounds and disparate expectations, and to consider the influence, actual and potential, of higher education upon the social problems of the day.

In the quieter past, the home, the church, and to a degree industry have been dominant influences on the culture and mores of the nation. Now, institutions of higher learning find themselves closer to the center of the stage than ever before. An inescapable by-product of this new eminence and influence is responsibility for ensuring relevance in subject matter, challenge and intellectual excitement in providing and guiding learning experiences, and enlightening leadership in the development and improvement of society.

Ironically, at the very time when all components of society are demanding greater educational opportunity and college graduates with increased competence, willing and able to bring new order, justice, and human dignity to a world in chaos, much that the university has traditionally offered is scorned and rejected. At the very time the conscientious teacher is striving to present relevant concepts, information, and techniques effectively to rapidly multiplying numbers of impatient students, he must face vast amounts of new knowledge which should be sorted, assimilated, reorganized, and prepared for the classroom.

This volume has been written in the conviction that, while most teachers are well aware of the difficulties and satisfactions of effective teaching and share the assumption that there is no single exclusive method of excellent teaching, both the novice instructor and the senior professor can profit from a fresh and direct examination of the process of teaching and learning in higher education. Most academics concede that there is no such person as a "perfect" teacher and that any teacher who is genuinely content with his performance merely demonstrates that his goals were so modest it was possible for him to reach them. No responsible teacher lays claim to final truths which will guarantee perfection in the practice of teaching; nevertheless, many young teachers can learn much from those who have continued to learn and have been willing to test new ideas and to adapt those that proved successful. Veteran teachers can offer reliable suggestions concerning ventures likely to be productive and those likely to continue to lead to frustration and failure.

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*Dr. Cooper is dean, College of Liberal Arts, University of South Florida, and Chairman, Joint Committee on College Teaching.

Students know--and act upon their knowledge--that some teachers are more effective than others, not merely or even necessarily more learned but more resourceful in engaging and exciting students and launching them on intellectual adventures of their own. Students also often recognize more astutely than faculty colleagues or academic administrators that many teachers are at their best with particular kinds of students but either fail to challenge with other types or to be appropriately compassionate. The lackluster lecturer may be a deft and probing seminar leader; the brilliant and dramatic expositor may be the overbearing monologist who frustrates small-group discussion. Whatever his gifts or limitations, the teacher with a vocation must be alertly self-critical; he must seek continually for increased effectiveness in communication and intellectual engagement; he must check repeatedly and with painful honesty to ensure that the knowledge he endeavors to communicate and the skills he seeks to develop are, and are demonstrated to be, relevant to the time and to the students.

This work has been designed primarily for those newly embarked upon a teaching career whether as neophyte faculty members at the end of graduate preparation or as teaching assistants in a university. But even the veteran teacher, like the admirable Clerk of Oxenford, with a mind open to fresh suggestion, should find much in these pages to inspire reflection and experimentation. Individual readers may be more interested in some sections than in others; however, a reading of the whole book should repay the effort, as it sets the task of teaching in full perspective.

This work reflects a deep and abiding common concern among leaders of national professional societies for the improvement of quality and the insurance of relevance in teaching in their several fields. If it succeeds in stimulating teachers to improve the practice of their art and craft and sustains them in their efforts, all those who have contributed to it will feel richly rewarded.

EARNING AND LEARNING BY THE HOUR

by Stanford C. Ericksen*

In the Golden Age of teaching--before printing, electricity, and grade-point ratios--the role of the teacher was to conserve and transmit knowledge and to inspire students to inquire into themselves and the world around them. Despite the technological and social complexities that entangle higher education today, these purposes remain. The practical problem is implementation: How best can the instructor utilize the available resources to direct the academic progress of students? This chapter therefore deals with practical matters of instruction, with the means by which the teacher and the student can best achieve their ends in the classroom.

PEDAGOGICAL IMPRINTING

First impressions are important. Every new instructor knows this from his own experience as a student. Having been for many years a spectator to the teaching process, he has witnessed firsthand the many different ways of teaching and has favored some over others. It is through this process, more than through formal teacher training procedures, that his own image of good teaching most likely took form. Preparation for college teaching usually emphasizes substantive knowledge almost to the exclusion of the practical aspects of teaching. When the graduate student moves to the other side of the desk to practice, without much practice, what he has observed for so long, he is understandably concerned about his competence as a classroom teacher.

In response to his inquiries or perhaps as a matter of form, a department chairman, dean, or senior professor might advise the beginning teacher of the traditions and conventions of the department and the institution with respect to classroom conduct and administrative obligations. These briefings may include admonishments ranging from no smoking rules to matters of *in loco parentis*. The decision on how many of these an instructor will accept, ignore, shade, conform to, or perhaps extend will be made and remade throughout his career.

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*Dr. Ericksen is Director, The Center for Research on Learning and Teaching, The University of Michigan.

At any rate, on the first day of class career plans become reality. The exciting mix of anticipation and anxiety in meeting a class for the first time is not restricted to the rookie; even Old Pros often sense a dry mouth and sweating palms when they walk into the classroom for the first meeting each term. Teachers particularly sensitive about personal relations with students may start out by giving considerable attention to matters of class procedure and to their own and students' responsibilities. Those with a stronger content orientation may use this first hour to outline the curricular substance of the course and proceed immediately with the initial content lecture.

Whether the emphasis is on procedure or content, the anxious teacher should avoid untried flamboyancies, stage tricks and other contrived attempts to impress students. It is extremely difficult to play an artificial role over a full semester of exposure to and critical observation by an intelligent audience. On the first day or any other day a teacher is in no position to deviate from the consistency of his natural manner of talking, thinking, and behaving.

The teacher's initial responsibility is to define clearly his instructional objectives. He need not necessarily do this on the first day of class, although he might make a start on the means of achieving content objectives, i.e., by describing the taxonomies that will be used, the nature of assignments, the conduct of examinations, including the ground rules for grading and evaluation.

Generalizations about what, when, and how a teacher does things nearly always have to be reinterpreted to meet the instructional specifics of a given content area, the particular habits and traits of each teacher, and the differing backgrounds, abilities, and expectations of students. Teaching in a 2-year community college, for example, is quite different from teaching seniors in a large university. Advanced students have learned how to be college students; they know the tactics and strategies for the care and feeding of teachers; and they realize the different weight to be assigned the different competitive elements among students and between students and teachers--the games these people play.

Even so, and despite the differences between teachers, departments, and schools, most students start a course with certain common questions. On the first day of class they mainly want answers to four questions.

1. Does the teacher care?

Most teachers and students prefer small classes and for the good reason that in small groups they can relate to one another and be recognized as distinct and real persons rather than as seat numbers to be evaluated by an electronic test scoring machine. An instructor who does not enjoy teaching and has no particular interest in his class as individuals will very likely not be well received by the students. If he doesn't care neither do the students, regardless of his teaching style. The same effect is generated by those professors whose primary interest is research rather than teaching and who look on their classes as forced obligations. They hope students will not bother them and will leave them free to pursue projects in the library or the laboratory that are presumed to bring them higher status.

If in succeeding class meetings the instructor gives valid evidence that he is trying to communicate with students, that he does sincerely care about their progress, that he makes whatever adaptations are possible to meet the individual interests and abilities of his students, quite likely they will accept him and endorse his teaching. The teacher who likes his students and who enjoys teaching meets what most certainly must be universal characteristics of successful teaching.

2. Is the teacher fair?

Students are more likely to object to unfair treatment than to excessive demands by way of assignments and work load. As long as they feel that the competition if fair, individual students will proceed to achieve at the level consistent with their interests and abilities and prerequisite qualifications. Students also judge the fairness of the teacher by his own classroom manner; a teacher's pet is not less an irritant to college students than he is to elementary school pupils.

3. Does the teacher know the subject matter?

Students are not uncritical judges of an instructor's subject-matter competence. Experienced teachers develop various techniques for buffering, bluffing, or bamboozling critical students on topics about which they feel insecure, ignorant, or indifferent. When these techniques are appropriate, if they ever are, is a matter for individual judgment. It is doubtful, however, that incompetence in the subject matter one teaches can long be covered up in meeting the minimal requirements for effective teaching in college.

4. How is the course relevant?

Is the course relevant to me, the student might wonder, or to the problems of the world around me or mainly to the subject-matter specialist? Students have pressed the word "relevance" to the point of diminishing returns. Despite linguistic distractions, relevance and its derivatives--validity, usefulness, utility, generality, application,--remain significant factors against which students and faculty will evaluate a particular course of instruction. Since relevance implies a value judgment,the instructor must differentiate the source of this appraisal; if a topic is relevant to the student's further understanding of the parent discipline, it should not be compromised in response to demands from the students who are looking only for the applications of a given body of knowledge to a contemporary social problem. Nevertheless, and in contrast to an earlier day, fewer and fewer college courses can be defended primarily on the basis of their intrinsic worth and without reference to the value of the course content (broadly defined) to external problems and issues.

Sometime during his first term of teaching, thenew instructor might well seek the advice and counsel of an experienced teacher. Institutions vary widely in this practice (Koen, 1968) but whether voluntary or imposed, supervision is often considered by the apprentice teacher to be the single most needed provision in his preparation as a teacher.

This chapter is one step in a practical exercise in the application of theory; the concepts are here but their application remains the responsibility of the individual instructor. College teachers are quite capable of interpreting and utilizing for their own purposes the factual statements, propositions, and value judgments here presented concerning their three most important responsibilities: Student motivation, learning, and evaluation.

GENERATING AND MAINTAINING STUDENT INTEREST

The art of teaching is in no way better exemplified than in the ability of a teacher to increase a student's motivation to learn. Even so, college teachers do not, for the most part, make a public display of the talent to inspire, and particularly not in the presence of colleagues. The older academic culture views teachers and students as rational men seeking "truth without consequences" (Schorske, Chronicle, 1/13/69) and discipline purity without mission utility. For a long time, therefore, motivating students to learn has been part of thehidden agenda of teaching.

Yet teaching is not a form of psychotherapy, and the teacher should be less concerned with personality dynamics in general than with the dynamics of learning and thinking. As vital as motivation is, it should not be separated from the content of a course. The teacher motivates by precept and by example, not by showmanship, and in this way gives evidence that the material in his course is worth learning.

Until recently, the purpose of higher education was mental discipline and character building, and motivation was thought to be best controlled through punishment and the threat of punishment. Today higher education states its goals quite explicitly in terms of the content students learn and the attitudes they acquire, and therein lies its educational relevance and, therefore, its appeal. Teachers and students alike want tolocate and make use of the conditions that determine how much and how well subject matter is learned. Thus, thepractical relationship between teaching and motivation is about the same as the theoretical relationship between learning and motivation, and interaction that has been thoroughly examined in the research literature.

It is generally agreed that motivation is an extremely powerful, if not a necessary, factor in the learning process. A student's motivational level changes significantly during a one-semester lecture course, for example. Most of the time he loafs along until the next examination is announced; then he moves into action. As the hour of the test approaches, his level of anxiety may actually exceed the optimum level of motivation for effective learning. Bruner (1960) has an interesting observation on this point:

> Somewhere between apathy and wild excitement, there is an optimum level of aroused attention that is ideal for classroom activity. What is that level? Frenzied activity fostered by the competitive project may leave no pause for reflection, for evaluation, for generalization, while excessive orderliness, with each student waiting passively for his turn, produces boredom and ultimate apathy. There is a day-to-day

> problem here of great significance. Short-run arousal of interest is not the same as the long-term establishment of interest in the broader sense....The issue is particularly relevant in an entertainment-oriented, mass-communication culture where passivity and "spectatorship" are dangers. Perhaps it is in the technique of arousing attention in school that first steps can be taken to establish that active automony of attention that is the antithesis of the spectator's passivity. (p.72)

The motivational complexities of a college class can be seen (inferred) among students taking a required course. The student who enters a "core" course with a positive attitude and genuine desire to acquire a particular body of knowledge represents quite a different motivational set (expectation) from the set of a student who is critical and suspicious or has a negative or resentful attitude toward the requirement. Students with sharply differing motivational sets do not hear or read the same things and to a certain extent may hardly be participating in the same course. Fortunately, most students are able to mask a rather specific, negative set for a given course by their stronger interests in maintaining their self-esteem, achieving their level of academic aspiration, and appearing to be congenial and contributing members of a group.

Extrinsic Motivational Control

A basic maxim of learning theory states that reward is more powerful than punishment in changing behavior. Psychologists did not discover the phenomenon of reinforcement; they simply took an age-old principle of behavior into the laboratory in an attempt to describe more specifically the relationship between reward, punishment, and behavior change. The task of the teacher, however, is to provide in a natural, sensible, honest, and forthright way the reinforcing information and events for the student.

Fear and punishment

Despite its well-established place in education, punishment remains the enemy of good instruction. The protection and support given punitive methods by the educational system and its traditions notwithstanding, this negative method of control is essentially a lazy man's way of teaching, and the consequence is too often a widening breach in the personal relations between the teacher and the student. Skinner (1968) has analyzed the educational effects of punishment:

> Whether maintained by the physical environment, the social environment, or the teacher, punishing contingencies are no doubt effective, but their mode of operation is easily misunderstood. Where positive reinforcement builds up behavior, negative reinforcement seems to break it down, but the effect is not quite so simple....By punishing behavior we wish to suppress, we arrange conditions under which acceptable behavior is strengthened, but the contingencies do not specify the form of the latter behavior. When we punish a student who displeases us, we do not specify pleasing behavior. The student learns only indirectly to avoid or escape our punishment, possibly by acquiring some of the techniques of self-management.... (p. 186)

The variety and the range of reinforcing contingencies are considerable but many are not particularly related to achieving the objectives of a specific instructional program. Simply "pleasing the teacher" or staying eligible, or earning a scholarship and special awards, or getting a better job by virtue of high grade average, are all motives that are extrinsic to the subject matter itself, and of questionable reward value. Nevertheless, they are there and to many students they are the controlling reasons for study and academic achievement.

Grades as incentives

The course grade is one of the most powerful incentives at the teacher's disposal. Earning a high grade serves strong and varied motives. Whatever the skill or knowledge of the teacher, whatever his discipline or method of instruction, the anticipation of being graded will influence the student to learn material he expects to be asked about on an examination. McKeachie (1962) suggests that the failure to establish the superiority of one teaching method over another may be in part because motivation to earn grades *per se* is so strong that it overrides the effects of most teaching methods.

Attention is selective and students tend to structure material they read and hear around their expectations about the kind of examination they will confront. If they expect to be asked for unassimilated facts, they will memorize; if they expect to be required to integrate, extend, and evaluate, they will work toward those ends. To utilize fully the incentive value of grades, the teacher must ask: "Will a high score on this examination indicate that the student has met the instructional objectives I have set for this course?" If not, the teacher has neglected a powerful and relevant incentive.

In an early study (Ericksen, 1940) it was found that given ten reasons for wanting to earn good grades, students said the most important was to receive a good "recommendation for a job," and second, "to indicate that I am actually learning something: new facts, how to think, etc." The relative weight given the various reasons differed markedly from one group of students to another, indicating the complex and distinctive pattern of motives of individual students. Recognition of these differences should supplement the instructor's understanding of individual students' abilities and aptitudes.

Intrinsic Motivation

The ability to relate subject matter with the student's own aspirations and values is probably one of the defining characteristics of the master teacher. By the time a serious student comes to college he has acquired strong curiosities; a continuing interest in searching for concepts and principles which will integrate and give meaning to otherwise diverse events. Conceptual ordering can be exciting and most likely becomes so when a student has the intellectual freedom to seek theinformation that will reduce his own uncertainties.

Reward without grades

The subjective feeling of understanding can be its own reward; McKee (1964) found that a well-programmed unit on basic electronics held the interest of a group of young adults in a correctional institution who, probably for the first time in their lives, were participating in an intrinsically rewarding educational experience. Fader and Shaevitz' (1966) delightful report, Hooked on Books, confirms again the power of self-directed achievement to promote academic progress among otherwise "poor learners." It describes a program in which boys in a training school were encouraged to read or write about whatever they wanted and were rewarded for their gross accomplishment rather than punished for what they had not read or said correctly. The most dramatic example of success is the case of a boy, essentially illiterate when the program began, who later published a book of poetry.

The college teacher today and in the forseeable future must learn to utilize intrinsic motivation, to restructure his subject matter and his instructional procedures so that his particular course becomes relevant, either to a larger aspect of the discipline or to some aspects of society, or both. The first teach-in (1964) at The University of Michigan, for example, was an intense educational experience for students and faculty alike. It had nothing to do with grades but, in the eyes of those attending, it had everything to do with the relevance of higher education to an important issue in society at large.

How far the teacher can go in adapting his course to the personal interests and needs of each student, in addition to the "needs" of society and his discipline, depends partly on the size of his class and on his own abilities and his interests in bringing about these individualized adaptations. The final responsibility must rest with the student, however, since he can best match his own intellectual curiosities with the corresponding elements in the course itself; for example, he can write his term paper or conduct a special project on those topics that interest him most and have greater relevance to his personal program of education and his career aspirations.

Intellectual curiosity

Intellectual curiosity is the best single example of intrinsic motivation in education.

> To those who agree with Samuel Johnson that "Curiosity is in great and generous minds the first passion and the last," the motive that impels the quest for knowledge for its own sake is inestimably more important than the various kinds of extrinsic motives directed toward the attainment of grades. If classroom incentives for learning have been nothing more than the extrinsic satisfactions to which good grades are instrumental, what will remain when the last exam is turned in and the threat or promise of a course grade no longer looms to control and direct learning? If, on the other hand, learning in college has been intrinsically satisfying, and if curiosity has been fostered, is it not more likely that questioning and searching will continue throughout a lifetime? (O'Connor, 1964)

Just as he cannot deal squarely with most of the other important incentives for learning, the teacher cannot appeal directly to students' intellectual curiosity. Understanding and meaning speak for themselves and if the organization and sequencing of a course are well done and if the teacher can arrange conditions so that a student can evaluate his own progress, the teacher's "problem" of student motivation to learn will almost take care of itself. The student can pace himself at the rate and in qualitative patterns that are most compatible with the curiosity that brought him into the course; he will learn what he needs to know to reduce the uncertainty and resolve the cognitive conflicts and the confusion and complexities, the ambiguities that form, in sum, the ideal profile of academic motivation.

Social Support for the Achievement of Academic Goals

Students of this generation and those for at least the forseeable future will acquire strong people-linked habits of learning. To understand the motivation that students bring to class requires that the teacher take into account the larger academic atmosphere within which the student studies, works, and plays. As Newcomb (1968), Astin (1968), Brown (1967), Sanford (1967), and many others have shown, the outside-of-class experiences of students with their families, their peers, the faculty, and the community carry a dominant influence in shaping academic plans and aspirations.

From infancy most of what a child learns is directly conditioned to other people; and from that point on the child is constantly being "educated," rewarded and punished, as he moves along one learning curve after another within the environment of other people. Students are not students per se, that is, logical and rational learners; they are young adults with feelings, ambitions, and anxieties and with sensitivity to and concern about their relations with others. Communication between teacher and student requires an appreciation of these dynamic social and personal factors so important in shaping the academic achievement of students.

The residence hall

The long-term effects of a college education--especially the attitudes, the values, and the interests carried away by the graduate--are more likely the consequence of experiences outside the classroom than the result of formal classroom instruction. The movement among large universities to establish residential colleges can be justified and defended on many grounds, but high priority should be given to the role of the residential experience in coalescing educational aspirations in general, and the motivation to learn in particular.

By assigning roommates and some floormates who also are classmatesand with easy access to resident teaching fellows and to senior faculty, a well-planned residential program in a large university can recover a great deal of the academic and social interplay that characterizes the small liberal arts college. (Wunsch, 1966)

Discontinuity between formal classroom work and extracurricular activities seriously reduces the motivational support for academic achievement. An ideal residential college overcomes the rupture between the student's academic work and his personal and social activities outside the classroom.

The home

Most college students in the United States live at home, but even those who are "away at college" carry with them the influence of their families. Numerous studies, especially those of Thistlethwaite (1960), Astin (1963), and Holland (1959), have found that the educational aspirations that a student brings with him to college--for example to earn a Ph.D. or an M.D.--have a greater influence on his achievement than the separate or added influence of his undergraduate college. According to these studies, the fact that such a large proportion of graduates from select liberal arts colleges seek advanced degrees is more a function of the kinds of students who go to such colleges than of the "institutional effect" itself. These are not, of course, hard and fast distinctions, and the value of this research rests primarily on underlining the lasting motivational effects of the home and the home community.

Extracurricular activities

To most teachers on the wrong side of the generation gap, the phase "extra-curricular activities" means such playtime activities as athletics, dances, publications, and the fraternity life. These still exist, but their influence may be progressively declining as students become more involved in social change in the community at large. Undergraduates and faculty at a number of institutions have been meeting out of common interest to arrange courses of study oriented almost entirely around the social, political, economic, educational, and other problems presented by ghetto life in contemporary America.

The dichotomy between curricular and extracurricular pursuits is becoming less distinct as the student protest for greater educational relevance becomes louder and more frequent. The changing extracurricular activities of students is a reminder of their educational interest. Homecoming queens are still nice to look at but they are rapidly becoming symbols of a college purpose that is drifting by as students themselves are re-ordering their priorities.

The Press for Personal Goals

A predictive test of a student's level of motivation, if one existed, would undoubtedly be as valid as prevailing correlations with verbal and mathematical aptitude tests. Teachers recognize that some students are simply more ambitious than others and have a stronger drive to achieve, to succeed, and to excel. The characteristic motive of other students can be described in terms of anxieties and fear of failure, while others might show a greater need for affiliation, for friendship, for personal support, affection, and the like. Actually, of course, each of us, teachers and students alike, can be plotted at the intersect of an almost infinite array of characteristics. As tempting and as convenient as it might be, the teacher must avoid accepting a neat pigeonhole classification of student motivation and focus his attention more sharply on the educational interests of each student as an autonomous, independent, and unique person.

Level of aspiration

Most students are quite self-critical and sensitive about their level of performance. Considerable research has been directed at the relation between the student's expectation when he starts the task (course) and the level of his final performance. Empirical studies show that rewarding achievements beyond a pre-set level will produce greater change in behavior than punishing failure to achieve the expected level of performance. The teacher should, therefore, be more concerned with lowering the level of aspiration for slow or weak students rather than with raising the level of aspiration for those who aim too low.

Unfortunately a student's level of aspiration is too often linked with grades and the quality-point ratio. Instructors can help a student reshape his ambitions toward specific academic achievement by making qualitative evaluations of reports, papers, performance on examinations, and the like. This type of personal recognition does the student a marked educational service by helping him to discriminate between grades as housekeeping or management devices and intellectual achievement as the proper end of education.

Interests, attitudes, and values

The conforming student is easy to teach, but the uncritical acceptance of chunks of knowledge does not add up to the kind of complete education students need to cope successfully with the wild rush of scientific and technological change and to understand social conflicts and issues. It is the constellation of interests, attitudes, and values which the subject matter can help to formulate that will remain with students long after factual information and concept labels are forgotten or found to be obsolete or irrelevant. The instructor must therefore accept the further responsibility of defining attitudes and values that he believes to be appropriate goals of his course. However, the line between instruction and indoctrination is sometimes indistinct and unless attitude changes and values are explicitly defined early in the course, the instructor may be vulnerable to charges of brainwashing and thought control.

Interests, attitudes, and values are all motivational in their behavioral effects. It follows, therefore, that a central task of the teacher--and one that cannot be transferred to the computer or to the counselor—will be to direct the learning and thinking of each student along lines that are consistent and compatible with the motivational profile he brings to class. Motives carry the important function of screening either in or out the kind of ideas that the student incorporates into his thinking, his aspirations, and his actions.

Student discontent

Student discontent over specific courses and specific teachers is "old hat." The new phenomenon is discontent with the institution, for example, with the residential life of the student, student participation in university decision making, and the official role of the university in community and national affairs. These protests extend beyond the specific adaptations that a given teacher might make for a given course. Nevertheless, a significant change is taking place in the direction of pressing the teacher to become involved with value-judgments. He is being urged to go beyond the traditional information--giving function and help students define their base-line humane values as these relate to society as well as to the current and future developments of the discipline. The instructor is in a position to help students combine means with ends, to link methodology with content, and to validate both in terms of the social purposes of higher education.

Love and othermiscellaneous motives

Sex seems to interest college students (and others) but whether sex is related to learning and thinking is a matter for which data are elusive. Nevertheless, the new instructor soon becomes aware that the classroom is a game preserve for activities which are tangential or parallel or orthogonal to the educational purpose of the course. Any discussion of student motivation must, therefore, at least recognize the "miscellaneous" category. The instructor considers education as studying and going to class, but many students, unfortunately, view these hallmarks simply as indirect means of fulfilling personal interests. A request from a student to his teacher may be important to one but trivial, if not out of order, to the other.

The solution, theoretical or practical, to this underlying conflict of interests is hard to come by. Rather than launch a counterattack, the teacher might find some way to justify an instructional "time-out." The announcement, for example, that an important examination will be given on the last class meeting before a holiday or a significant personal event (or on the day after) might demonstrate the pervasive authority of the instructor, but it will not substantially promote the academic excellence of the student.

The opposite extreme may be equally unproductive, namely, an overly permissive class in which the content and the rate of progress and the evaluation procedures are mainly under the control of the students, with the instructor being simply a passive logistical agent. Permissiveness has its place but not as an alternative to the instructor's definition of course objectives and his active role in arranging conditions for the achievement of these goals by his students. To bend to every whim of the students and to aggressively seek an informal atmosphere (all you students can call me Joe) too often tells the students: "I am more anxious that you like me than thatyou learn something."

LEARNING, THINKING, AND ATTITUDE CHANGE

The mystique of teaching serves as a buffer between the teacher and many of the outside criteria that might be used to evaluate his contribution to the learning process. The topics and the point of view in this section give only passing attention to developing teaching style in favor of defining a view of the college teacher as the person responsible for setting the goals of a course of study and controlling the means by which these goals are achieved.

Learning Theory and Teaching

Learning theory is the best source of supply for the logic and the meaning behind the instructional process. Principles of learning provide a stabilizing foundation in those places where the educational sands are shifting. Unfortunately, formal learning theory does not lend itself easily to off-the-shelf application. It is difficult to bridge the gap between the laboratory and the classroom. The experimental learning researcher uses his rats, or nonsense syllables,or conditioned responses in a highly reductionistic analysis of behavior change; he sacrifices complexity for rigor. The process of molecular analysis is the reverse of the synthesizing efforts of the college student.

The acquisition of knowledge--factual, theoretical, or procedural--by a bright young adult and his changing attitudes and values involve an intricate hierarchy of motives, interacting patterns of specific and general cognitive abilities, the effects of the immediate classroom environment, the intellectual atmosphere of the institution as a whole, and the demands from the community and the social world with which the student identifies himself. The white rat presses the bar in a Skinner box and earns a pellet as a reward, but this tightly controlled event has very few counterparts at the college level. The long-range question for the educational researcher, but the immediate task for the teacher, is to determine how best to use the principles of learning and of motivation and personal development for the maximum educational benefits to students.

Nomothetics is not the same as idiographics

Learning theory deals with principles of learning in general. It seeks to define the parameters of smooth function learning curves as the expression of the researcher's nomothetic, abstract interest in a series of otherwise specific events. In contrast, the teacher is concerned with the here-and-now zigzag curve of student learning. In his tutorial relation with students the instructor is immediately involved with the idiographic pattern of motivation and learning by the individual student as a unique, idiosyncratic, and autonomous person. In this sense the teacher is the mediator between the general principles of learning and their application in a highly specific if not a unique learning setting.

The rest of this section is essentially a guide to help the teacher make this transition, that is, to understand those conditions that will, in fact, improve the quantity and the quality of knowledge the student acquires by himself, in the company of his peers and under the tutelage of his instructor.

Learning = f(variables)

A basic concept in research on learning is the relatively uncomplicated equation in the subheading. However, the universe of variables that can influence the rate and level and direction of learning is almost infinite. It is therefore necessary to seek some degree of systematic ordering by using different subcategories such as environmental variables (class size, teaching style, media), task variables (learning facts, concepts, or attitudes), and individual difference variables. This latter sub-set comprises those factors provided by the student himself: His motivation, his intelligence, his specific and general aptitudes, his past experiences as a student, and as a member of a community. The research literature consistently reports these student-centered factors to be the most important ones determining how rapidly and how well the student will learn and remember.

It is toward these individual difference variables that the teacher should direct his greater energy in setting the conditions of learning for the individual student. Conventional research on teaching can often be faulted for its excessive involvement with variables having secondary importance for learning. This is why most studies comparing one teaching procedure with a "control" end up with the usual finding of "no significant differences," for example, between television instruction and live instruction, between large-class lecturing and small-class lecturing, between textbook reading and programed instruction. A more powerful educational impact can be expected when the teacher is able to release and give greater freedom to those factors that the student himself brings into the classroom.

The change-over from the traditional teaching model to the learning model means, in effect, moving the spotlight from the teacher, and his classic position in center stage, to the student. The teacher stands in the wings where he functions as director, as stage manager, prop man, prompter, and also as a key person viewing and evaluating the student's performance. Since teachers find it difficult to move out of the lectern spotlight one can expect this form of"teaching" to long endure, logic and data notwithstanding.

Interaction effects between teacher and student and subject matter

Concern with individual difference variables is a step forward, but it is not enough; a still finer distinction must be drawn, since students (or teachers or subject-matter areas) refuse to be lumped together and to give uniform responses to a particular change in method of instruction. Some students, for example, prefer strong leadership and dominance by the teacher, while others prefer the permissive environment generated by a warm and friendly teacher. By the same token, some members of the faculty would only embarrass and confuse their students by attempting either the "authoritarian" or the persmissive role. Furthermore, certain curricular offerings almost demand a discussion group (e.g., freshman seminars), while for a different kind of subject matter a large lecture may be adequate.

Added together these variations between students, teachers, and content areas are called "interaction effects." They are usually subtle and difficult to demonstrate and to quantify in research, but are familiar to the experienced teacher. The transition from an immobile mass communication system of education to a truly individualized process requires that teachers exercise and utilize these interaction effects. Ideally, instructional arrangements should be sufficiently flexible to meet the nature of individuality and the cognitive style of students who aspire to utilize what they learn for diverse purposes.

Original learning, retention, and transfer

In learning theory language, the basic model for conducting the educational process is the transfer of learning paradigm:

Group I learns 'A'-------------------transfer to 'B'
Group II ----------------------------learns only 'B'

In essence, this paradigm states that students who participate in original learning, 'A' (Group I), will retain this information and use it to their advantage in task 'B', which may occur laterin time and in a quite different situation. Control Group II enters task 'B' without the advantage of prior training in 'A'. Situation 'A' can be almost anything-- a specific traning program, a particular course of instruction, or the total experience of going to college.

Teachers and students understandably direct their energies toward the acquisition of knowledge (original learning) during the formal period of the college course and measure this achievement against performance on the final examination. It is then hoped or assumed that the student will carry over appropriate positive (in contrast to negative) transfer effects to his other studies and to his work following graduation. As a subject-matter specialist a faculty member is primarily interested in organizing and presenting a particular body of knowledge, but as a teacher he must also recognize his responsibilities for planning instruction for the transfer of learning benefits for students. How might this be accomplished?

Historically, the most widely held theory of transfer by college teachers has been the Doctrine of Formal Discipline. It is assumed that the mental effort required by the study of certain subjects, for example the classical languages and mathematics, would exercise the student's mental faculties and thereby improve his performance in such other subjects as history, English, and logic.

Transfer of learning has been a topic of experimental investigation and theoretical debate for more than 75 years. Differences in teachers, students, and subject matter preclude the specification of an instructional procedure that will be equally applicable to all departments. Furthermore, the mechanics of "teaching for transfer" are probably less important than the decisions the teacher makes about the objectives and the content of the course, its organization, and the methods used to evaluate student achievement. The classroom is where the learning starts that should later be transferred to other courses and to settings and problems beyond the campus. It is to this kind of learning that the teacher must direct his major attention. When he is satisfied, for example, that the objectives in his course have high and enduring relevance, he has taken the first prerequisite step toward making possible positive transfer benefits by his students. The teacher should feel confident that the material he asks his students to learn is in a form that permits generalization and utilization beyond the classroom.

The student carries the transfer effects in his own head, but he mediates the transfer, not as a side effect of memorizing, drill, and other variations of tedious mental effort, but rather as the result of the content he learns, and the implications and extensions he can make for utilizing this information. Of particular importance for transfer purposes is that students acquire facility in problem-solving procedures, the use of methodology, and learning how to learn. In effect this means that transfer is brought about through language and the connotations and denotations carried by the symbols, the vocabulary, and the universe of discourse of a particular discipline.

Instructional Objectives

To change one's teaching habits and to redefine one's instructional objectives in keeping with the growth of new knowledge is, perhaps, the most significant professional task of the university teacher. The obsolescence of information is a pressing issue for the college teacher and the setting forth of valid instructional objectives demands the very best talent, if not the prophetic power, of the faculty. It is far more difficult to state instructional objectives in terms of the actual performance of a student after he leaves a course than it is to define "good teaching" in the narrow, information-giving meaning of that term. In comparison with the former, the latter is almost trivial since telling things to students is hardly more than the first step in the application of learning theory to classroom teaching.

In essence, the matter of course objectives resolves itself into two basic questions: (1) At what time in the future will the relevance of a given fact, procedure, concept, or attitude have passed its inflection point (half life) and be starting down the hill toward obsolescence? (2) How can content material be set forth so that the student can tell whether or not he is moving toward the established goals? The ideal instructional objective refers to the changes that are desired in the kinds of questions the student can answer, problems he can solve, procedures he can execute, attitudes expressed in behavior, and values to which he will aspire.

Clear-cut behavioral objectives are difficult to define for most college level courses. How, for example, can the instruction and evaluation be adjusted to encompass the subtle objectives of motivation to learn, critical thinking, value judgment, favorable attitudes toward the discipline, ability to organize relevant information and to utilize concepts, ability to define and to solve problems, and so forth? Surely these are some of the more pressing and complex educational issues that the subject-matter teacher must meet.

Higher education has never been without its objectives, but the "big push" to define these in terms of student performance came with the technology of programmed learning developed by B. F. Skinner (1954) and his followers. Puristic programed instruction has been criticized and is indeed vulnerable to the same reservation given to objective tests --the curricular material that lends itself to programing (or objective testing) too often falls below the fundamental level of understanding and integration that has long stood as the essential goal of teaching. Programed instruction in its broader meaning of logical organization, sequencing, and feedback information, represents probably the best single approach toward upgrading the means by which the teacher can help students achieve an explicit educational purpose.

A good mathematics teacher must have been the original instructional programer. In a not atypical case the professor starts the class hour at the upper left-hand corner of the blackboard and when the bell rings he has derived or balanced the equation in the lower right-hand corner. The student is expected to learn and to understand the logical sequence from the first term through the successive derivations to the final point. It would seem irrelevant to ask this teacher the "terminal behavior" expected of his students other than that they be able to "understand and to reproduce and to handle the extensions of this sample of mathematical logic."

A similar argument could be used for most college courses, namely that sequential ordering of information is itself an instructional objective, and it would seem picayune, if not redundant and belabored, to restate this objective in behavioral terms and in reference to various external performance situations. Bright students have been acquiring facts and procedural information and understanding concepts from poorly written textbooks for a long time and have been able to retrieve and utilize this information when necessary after the course is over. There is no question that the instructional process can be improved by applying the programmed learning model, but the solution does not rest in adapting all printed instructional material to the programed learning format or some close variation of it.

As one step toward achieving greater specificity of course objectives it may be helpful for the teacher to inventory the substance of his course in a few familiar categories. The teaching and evaluation procedures for each of these categories call for a distinctive approach.

A. Accumulation of factual information

The ability to retrieve an impressive array of facts is not necessarily the measure of an educated man, although students do tend to give higher ratings to teachers who stress the learning of specific factual information. This attitude is to be expected since, for the most part, education has been dominated by pressures to learn new facts as a means of answering rather specific questions. One of the main troubles with a "fact" is the disconcerting way it becomes a "non-fact" in a short period of time. Nevertheless, since facts are prerequisite to understanding concepts, principles, and generalizations, each student must necessarily start to construct his hierarchy of knowledge in a given field on a factual foundation.

Meaningfulness is the keyvariable in learning facts, since only rote-learned items that become meaningful remain in memory and carry a utility function over time and through variations as the student moves from place to place and from problem to problem. In order to achieve meaningfulness, which is personal and subjective, the student must actively participate in the process of learning what the facts mean. Writing a term paper, conducting a special project, or discussing an idea in a group contributes to this purpose.

B. Acquisition of skills

Skill learning is a commonplace process and demonstrates the basic conditions for learning and retention. However, the display of finger dexterity, or acquiring complicated perceptual-motor skills, is less important in the liberal arts undergraduate curriculum than in several areas of vocational training. For the most part the extensions of research and theory on verbal learning in the classroom have greater relevance to college teaching than the findings from studies on motor skills. Nevertheless, it should be noted, for instance, that the conditions which cause a student to retain a skill over time--active participation, feedback, and the like--are also the conditions that make it difficult to change it.

C. The understanding of concepts and generalizations

It is usually moredifficult to teach the meaning of abstract ideas than to lecture about specific factual information. Considerably more is known about the teaching of substantive material, whether it be facts or taxonomic concepts, than about the teaching or problem-solving procedures and research methods. Here, indeed, is the nub of the task. It is easier for the chemistry professor, for example, to teach laboratory technics and the facts of chemistry than to teach theory and the complex methods of research. Despite this difficulty, formal education in the future will necessarily place greater emphasis on methodology, concepts, generalizations, and principles, and their utilization than on the teaching of informational specifics.

The two fundamental pedagogical problems involved in teaching concepts are (1) how to teach abstract concepts without divorcing the student from the logic, the objective data, and the concrete real-world references that support these ideas; and (2) how to teach for the future utilization of conceptual knowledge in a problem-solving or decision-making setting outside the classroom.

The concepts that a student learns are not packaged units of information to be acquired and stored in memory like books in a library. He should be able to draw on his understanding of concepts for general use from one class to another and into the natural setting away from school. The teacher contributes to the student's understanding of concepts in many ways, but at least three guidelines can be mentioned as appropriate for the kind of learning that usually occurs in a college course:

(1) The material the student reads and studies and hears must be organized by the teacher into a logical hierarchy. The teacher must establish the basic organizational sequence and structure that will enable the student to acquire the kind of knowledge that carries some degree of generality beyond the classroom. This is programing in its generic sense.

(2) "Students learn only what they do" is one of the tried and true cliches in learning theory. It is oversimplified, of course, but it does highlight the importance of active participation by the learner in generating specific examples and instances that either confirm or deny the meaning of an abstract concept. With each of these examples the student is testing his understanding of the concept and its boundaries, and the teacher, of course, is usually the one to judge how adequate is the meaning the student has acquired.

(3) Knowledge of results, feedback, or reinforcement is viewed by many learning theorists as a prerequisite for learning. When a student makes a response, reaches a conclusion, or makes a decision, he needs to know the rightness or wrongness of what he has done. The college student is an intelligent person who can bridge time and can also respond to subtle cues; thus he does not require the immediate flash of a green light, or a piece of candy, or a nickel as an immediate reward for his own response. He can be rewarded by the confidence that comes with knowing he understands what he is reading.

It would, however, be rather difficult for reinforcement to occur as the student proceeds through his assignment if he did not know what he was supposed to learn or could not see that he was moving in the right direction. This means that prior to the effective use of reinforcement, the teacher must identify and state the instructional objectives in a language and form that are clear to the student (Ericksen, 1967).

D. Changing attitudes and values

As mentioned earlier most academic departments accept attitude change, value formation, and the acquisition of new and stronger educational motives, ambitions, and aspirations as appropriate and legitimate instructional objectives. The affective domain is difficult to define and can not be taught in the usual direct, preceptive way. Students are probably influenced more by the example the instructor sets than by his platform "sermons."

The extensive research of social scientists on theanalysis of attitudes and values can provide the teacher with valuable background information. *The American College* (Sanford, 1962) is a classic example of a growing body of knowledge about the personal and social development of the college student and influences on what and how he learns.

In puristic, objective terms, an attitude requires some form of behavioral expression as evidence that a change has occurred. Paper and pencil or verbal assent may not reveal the degree to which a new attitude will actually take form as a change in behavior. The most convincing evidence will very likely be given outside the classroom and probably at a later date. The teacher is therefore usually limited to working with attitudes at the verbal level; talking and writing about attitudes and values that are intrinsically related to the course objectives.

Transmitting Information

Since a college teacher must necessarily write his own how-to-do-it specifics on transmitting information, this section will simply point out the chief uses and the pitfalls and regressions that characterize the several modes of instruction.

The lecture

To McKeachie (1966) "~~t~~he lecture is the newspaper or journal of teaching; it, more than any other teaching, must be up-to-date." Mass printing technics have placed the book within reach of almost every student; and yet teachers have successfully resisted the suggestion that the fact-filled lecture might now be obsolete. And they have been encouraged in their tenacity by cost-conscious administrators whose major interest is the logistical "efficiency" of the large lecture. The lecture, despite its instructional vulnerability, has become for many professors a security blanket, without which they would neither feel like teachers nor be so recognized by their students. Such is the power of tradition.

A good lecture offers special educational advantages. In addition to updating texts, the lecturer can reemphasize those points which he feels are most pertinent to the course objectives. He can synthesize different topics and new material that threaten to overwhelm his students; he can provide the structure within which students can organize what they learn.

Students are naturally curious; they enjoy learning new things and find rewards in mastering new concepts or developing new skills. Studies on college learning indicate, for instance, that when lectures are arranged around questions which pique students' interest, rather than around mere recitations of fact, not only is learning improved but interest in further learning about a topic is increased (Berlyne, 1960). In particular, questions which arouse students' curiosity about novel aspects of things already familiar to them may have significant influence on the development of curiosity.

Perhaps the most crucial element in the good lecture is the personality and the attitude of the instructor himself. A lecturer with style and flair--or an honest enthusiasm for his subject--may well be able to inspire his students to further work in his field. He may be able to turn some students on--and others off. The public image of the master teacher has to a large extent been based on teachers with this motivational or inspirational quality. Popularity polls of good teaching as judged by students are heavily weighted toward the teacher who has the ability to maintain interest, to excite and challenge, and to arouse students through the substance of the discipline or its social relevance. This ability to stir up students may indeed be the central value of a good lecture; but it must go beyond mere showmanship and crass entertainment, for most students will see through and reject a contrived attempt at happiness-through-learning

(Center for Research on Learning and Teaching, Memo to the Faculty No. 30).

The seminar and the discussion group

Small classes can satisfy many of the requirements for student motivation, learning, and thinking, and their long-term future in higher education seems assured. A "seminar" course is quite likely to involve students more deeply in the subject matter than the conventional discussion group but both are misused by the instructor who chooses the small forum as a stage for his lecture.

McKeachie (1965) has summarized the particular advantages of the discussion class:

1. to give students opportunities to formulate principles in their own words and to suggest applications of these principles;
2. to help students become aware of and to define problems based on information derived from readings or lectures;
3. to gain acceptance for information or theories counter to folklore or previous beliefs of students;
4. to get feedback on how well his instructional objectives are being attained.

It is difficult to be a successful leader of a discussion group, because the teacher must recognize and manage the contrasting motives, interests, and concerns of the individual students while maintaining progress toward his content objectives and avoiding the tendency to drift into an unproductive bull session. As educational technology grows, independent study and self-instructional facilities will become more generally used and the discussion group will form the absolutely essential supporting base for such arrangements.

Small classes are expensive to operate and no obvious means of reducing costs seems to exist other than the use of teaching assistants or student-led groups (Leuba, 1963). The skills of the effective discussion leader differ somewhat from those of the large class lecturer. High-level competence in subject matter may not always be required, especially if discussion is tied in with a large class or if it, by some other means, follows the curricular organization established by an experienced teacher.

Laboratory instruction

Laboratory instruction is also expensive yet most science teachers favor early and continued student exposure to the laboratory. The instructor must be particularly careful to define the educational objectives of laboratory instruction, which is essentially a form of independent study with readily available tutorial help.

Laboratory teachers should be alert to the drift toward factual learning and procedural mechanics at the sacrifice of the analytical and conceptual aspects of instruction and the freedom for individual inquiry. The development of the audio-tutorial laboratory course by Professor Postlethwait at Purdue University (1966) is an impressive combination of educational technology and careful instructional planning, designed to achieve some measure of individualization in an otherwise large lecture-laboratory course. However, its value would lessen if students were locked into a predetermined track of factual learning or had minimal options for independent study of particular phenomena that challenge their interests and abilities. The undergraduate laboratory, automated or not, should include the possibility of an open-ended inquiry by each student, which would permit him to branch off from the main line at several points throughout the term.

Field trips

The large universities may have populated themselves out of the field trip as a routine instructional arrangement. It requires altogether too much money and logistical effort to manage a group of from 200 to 800 students on a controlled visit off campus. Two developments may have further outmoded the field trip for college students: (1) Technology makes it possible to send a camera crew into the field and to bring back into the large class carefully selected and edited samples of concrete issues, problems, and procedures which are directly relevant to a course. (2) Simulation and games, now being developed as instructional procedures, hold high promise for helping students identify, interact with, and manage various aspects of a complex event or relationship.

The interchange between academia and the community is today so important that the printed case study or the once-in-a-while field trip can hardly be an adequate contribution to the new educational goals. Mental health, poverty, environmental decay, traffic, urban problems, and so forth, are altogether too important to be looked at by the student in simple spectator fashion. Systematic and intensive in-the-field experience is becoming a more common aspect of otherwise traditional liberal arts courses in the social sciences. (Mann, 1966, 1969).

Interdisciplinary versus independent study

Interdisciplinary efforts characteristically face the problem of central instructional responsibility. If it is difficult to define instructional objectives for one's own course, it becomes doubly so for curricular offerings conceived by a committee. The educational benefits to the student must be more explicit than to offer an "enriching learning experience." Interdisciplinary studies and independent study should give students considerable freedom for decision making and self-defined educational objectives.

In its lowest form "independent" study turns students free for a period of time prior to giving them a required comprehensive examination. This practice amounts to ruthless exploitation of the student's extrinsic motivation to succeed or to conform by studying only what the faculty requires that he study. The essential value of independent study is the motivational freedom allowed the student to select a topic of personal interest andto pursue it at the rate and in the manner compatible with his personal methods of study and his abilities. Between these two extremes many variations of independent study and self-instruction arrangements can be seen as instructors seek to cope with the many constraints on their freedom to work with students as individuals.

Remedial instruction

Teaching the bottom half of the class is a revealing measure of one's competence as an instructor. The slow student--whether for reasons of motivation, ability, or personal, educational, or social background--should have direct access to the educational resources of an institution and should receive at least as much attention from the faculty as the superior student in the privileged honors program. Since the latter is well equipped to follow an independent study course, perhaps the time (money) and talent now set aside for honors programs should better be redirected toward remedial instruction for the bottom 25 percent of the student body.

Unfortunately, remedial instruction is not attractive to most college teachers and is applied only when a student is visibly in trouble. Many of the students who are now confused would have been better served had an early diagnostic evaluation been made of their strong and weak points. Instructors should know more about each student's position at the start of the rat-race-for-grades so that they might apply the proper handicaps.

A systematic program of remedial instruction calls for: (1) Diagnostic assessment when students start a new course of study; (2) easy access to remedial help from instructors or from special study materials; (3) motivational support through counseling or small group discussions, with particular emphasis on recognition and reward for progress.

Technological Aids and Multimedia Programing of Instruction

The term "educational technology" usually refers to such mechanical and electronic devices as slides, motion pictures, television, audio-tape recorders, 8mm single concept films and, more recently, the computer. The computer is the only "teaching machine" with a future, and like these other technological aids it will be successful only insofar as instructional content is carefully defined and organized (programed) by teaching specialists in the subject-matter fields. The conventional audiovisual aids are used primarily to manipulate the stimulus with little concern for the student's own mediating processss and his response. In closed-circuit television, for example, the image of the instructor making a classroom presentation is magnified manyfold and distributed to as many outlets as can be tied into the system. The source of the stimulus material for the student has simply been transferred from the professor himself to the television monitor.

The presentation of curricular material by technological devices does not relieve the instructor from his overall responsibility for integrating instructional objectives, teaching procedures, and methods for evaluating student progress. Other than its novelty effect, the "innovative" use of media may contribute little to the quality of instruction unless the media are selected by the teacher in advance because of their special potential for helping students make the finer discriminations related to a particular aspect of the subject matter and its meaning.

For reasons of high capital costs and technical servicing requirements, most of the electronic instructional aids are centrally controlled in A-V centers, TV centers, and computing centers (and libraries). Their optimal educational use, however, calls for decentralizated adaptation by the individual teacher and to a certain extent by the students. The interdependence of objectives, teaching (media), and evaluation is shown in the following summary of the more familiar forms of educational technology.

The book is probably the most powerful and widely used technological aid and is frequently under-used judging by student complaints that, in effect, a textbook makes formal classroom lectures redundant, if not obsolete. Updated printed instructional materials are now becoming available in less expensive forms such as paperbacks and locally reproduced copy.

The blackboard has strong survival value. Its widespread use over so many years is evidence that visual images of words and diagrams are important components of teaching. This test of time suggests that high fidelity in the visual image is not always a particularly significant specification for good instruction. Line drawings and schematics often contribute just as much to the learning process as detailed reproductions on film or slides.

The magic lantern gradually gave way to slides, to the filmstrip, the overhead projector, and motion pictures. Instructors today seem to prefer the moving image (film or video tape) even where motion is not particularly essential or relevant to the substantive content, probably because the moving picture seems to have a certain amount of attention-holding power. Video tape, now cheaper than 16mm film, permit the instructor to experiment with various forms of visual presentation. The television medium is thus becoming decentralized--as all media should be.

The audio tape recorder is essentially a form of decentralized educational radio. Dial access systems have been introduced at a number of colleges and universities, and for such subjects as music, speech, language, and literature, a library "listening room" is a valuable instructional resource. Frequently, however, these innovations serve logistical rather than specific instructional purposes. This often happens when an "instructional system" is introduced by the administration, by media men, or systems engineers with inadequate faculty consultation over the specific functions required by the course objectives, the methods for evaluating student achievement, and the tie-in with the several "non-system" teaching procedures.

Once the problem of compatibility between machines and formats has been licked, the 8mm single concept, closed-loop film will be widely used. In the meantime, the number and the educational value of available films remain limited for particular content areas. In principle the cartridged film is relatively foolproof. A student can now gain access to and study filmed material in the library or in his private study space with the same flexibility he might exercise in reading a library book. He is in control of a learning situation and can adapt his rate of progress, his review, and his self-testing procedures to his personal habits of learning, and his own peculiar strength and weakness.

The college student of the future will have access to the computer-controlled, independent-study carrel, where, literally speaking, a world of knowledge will be at his fingertips. "What knowledge is worth knowing?" will no longer be a rhetorical question, but a central issue in the seminars and discussion groups that must be closely associated with these self-instructional arrangements.

Computer-assisted instruction (CAI) is still in the drawing-board stage. Software development--meaning, in this instance, the curricular content and its use by students--lags behind hardward development and estimates differ widely on when the computer-mediated "teaching machine" will be operational at the college level. The full educational value of this expensive but powerful technology will depend on whether the subject-matter teacher is willing to devote his time and interest to putting something worthwile into the machine in a form that can be used effectively by his students.

Simulation is a form of educational technology that may or may not involve special devices and equipment. The instructor seeks to duplicate (simulate) certain features of a physical or social or conceptual environment in a manner that will give the student direct exposure to these preselected features and under controlled circumstances. Thus the first step by the teacher in planning a simulation project is to identify theparticular feature of component or relationship in the real world that he wishes to highlight for his students. Second, each student should exercise some degree of control over the sequence of events; he must be an active participant rather than a passive observer.

A third critical element in simulation generally follows almost automatically from steps one and two, namely, the return of information to the student regarding the consequences of his action, decision, or lack of same. (Ericksen, 1966).

The instructional pros and cons of educational technology --its procedures (e.g., programed learning, simulation) and devices (video tapes, computers, etc.)-- could go on at length. The literature is heavy with oversells and cautions, with theories and experiments, with exhortations and cynicisms. But when all is said and done, the classroom teacher remains the central decision-maker regarding those conditions that support the acquisition of knowledge and attitude change by his particular students.

Equally great, however, is the teacher's responsibility and his authority for evaluating student achievement and, where necessary, assigning grades. To many teachers this final step is nearly always a petty, contrived, and onerous task, but one that nevertheless cannot be farmed out to others. Like it or not, teachers must concern themselves with the matter of testing and grading.

EVALUATION

Evaluation is a sensitive and delicate topic and teachers know that error is partner to passing judgment on the quality of student performance. It is difficult tomake objective evaluative decisions within the complexities of the classroom, the teaching laboratory, the field setting, or the independent study program. Generally students do not object so much to hard work as they do to unfair treatment, and it is in matters of evaluation that this question of educational justice is most clearly posed.

The demands involved in systematically evaluating student performance often tempt teachers to resort to ready-made commercially available measuring devices. It is of course perfectly legitimate to use a technically sound external evaluating instrument in lieu of a teacher-made test, provided that the teacher neither compromises nor modifies his instructional objectives to fit the requirements of the available test. In most instances, however, the extra effort required of the teacher to develop a set of evaluation procedures for his own course will most likely yield a valid instrument which measures student progress toward his short-and long-term instructional objectives.

Evaluation of Instruction by Students, Self, and Peers

Student evaluations can be a valuable resource for the teacher in critically assessing his own effectiveness and the educational goals he sets for his students. Research findings show that student evaluations provide useful information about at least three aspects of a course: (1) The personal effectiveness of the instructor; (2) the rapport between instructor and student; (3) the organization and management of a particular class.

Some studies suggest that teacher characteristics associated in the minds of students with effective instruction remain stable over time--a professor judged favorably a few years ago will likely receive about the same rating today. However, stereotypes about "good teaching" are undoubtedly changing. Findings indicate that students are able tomake clear discriminations: they upgrade ratings of younger teachers who publish research articles, give better ratings to small than large classes, and prefer classes involving considerable group participation and a high degree of student-teacher contact. On the otherhand, neither difficulty of course as perceived by the student nor the grade he receives seems to be related to the way he evaluates the teacher himself in contrast to the objectives and the substance of a particular course.

The instructor must be careful to adjust the interpretation he gives to the student ratings in the light of at least three frequent sources of distortion: (1) The wording of the questionnaire; (2) the "halo" effect--the student's tendency to be uncritically generous in his evaluation; (3) a biased sample caused by failure of some students to return the questionnaire.

Apart from systematic and formal ratings from students, the teacher might on occasion stand back and take a self-critical view of his teaching methods, his course objectives, and the extent to which students have realized them. Carefully made examinations given during the course will indicate how thoroughly students are grasping the sub-goals of the course as well as what alterations in method and content will have to be made. When the teacher is trying to judge himself, diagnostic information inferred or given directly by the spontaneous behavior of individual students is probably more significant than some sort of Nielsen rating of the teacher as a mass communicator.

Grading Systems

Controversies about college grading systems develop when grades are interpreted as universal indices of academic proficiency. In fact, they are never much more than simplistic expressions of the extremely complicated interaction between teacher, student, and a body of knowledge. Their interpretation requires external references, for example the teacher's judgment of student achievement or the level of student performance in competition with others. Whether or not the assignment of grades on a unidimensional scale is worth all the trouble and conflict is a question which is now being asked more and more often by teachers, students, and administrators. Whatever the decisions, they should not be lightly made since criterion measures in education inevitably influence the curriculum and instructional program of an institution.

Conventional grades

The administrative and social aspects of grading are matters of far-reaching concern. Grade records are reviewed and compared by prospective employers, admissions committees, and used as a basis for special awards, eligibility, and the like. These administrative uses of the conventional grading system stand at least one step outside the classroom and are too easily subject to misuse and exploitation. For example, teachers should strongly object to the use of the grading system as a device for controlling non-academic behavior such as tardiness or absenteeism or disruption. If the system is used for this purpose, teachers should disclaim the meaning of the grade as a measure of academic achievement.

Most important here is the place of grading in the instructional process: How do grades help students learn? Grading procedures, whatever they may be, should first be judged in terms of their educational influence on the student. Some critics, looking at the effect of the present grading system on the student-teacher relationship, hold that the student's work is neither willing nor independent when it is done under the threat of testing by the same person who sets the learning task. Other critics charge professors with using grades to promote conformity among students (Miller, 1967).

Challenges are also being made to the opinion that grades motivate students to learn. If grades in college are analogous to salaries in jobs and if good grades are the only satisfaction students receive, if they have no feeling of accomplishment or sense of capability, then education is in a sorry fix indeed.

> Creativity in learning is best facilitated when self-criticism and self-evaluation are basic, and evaluation by others is of secondary importance....

> The best research organizations, in industry as well as in the academic world, have learned that external evaluation is largely fruitless if the goal is creative work. The individual must be permitted to make his own efforts. (Rogers, p. 12)

Coupled with the notion that the motivation to earn a grade produces weak educational results is the charge that the type of learning it encourages is not particularly relevant today. Traditionally education has stressed the assimiliation of an established body of information and students were graded accordingly. But, it is argued, now, "factual" information is rapidly outdated; the more important instructional objective is helping students learn how to learn, which is difficult to measure with objective tests and conventional grades.

Pass-fail grading

Critics of established grading procedures have advanced a number of alternatives; pass-fail (or better, pass-incomplete) is the "in" system today. Essentially pass-fail reduces the options available to the teacher for scoring student achievement from infinite (the 0-100 numberical system) or the standard five (A,B,C,D,E) to only two. Such a minimal system of evaluation, supported by descriptive statements by instructors, might reduce the current emphasis on grade grubbing, which alienates student from teacher and promotes learning not to satisfy individual needs, capacities, and curiosity, but rather to meet the instructor's expectations. Pass-fail, its proponents claim, will supplant motivation to earn grades with motivation to seek knowledge and understanding as its own reward.

Pass-fail presents a major administrative problem--the evaluation of student academic performance for graduate school admission, transfer, honors, and so forth. However, in 1967 more than 70 colleges and universities throughout the country were using the pass-fail system in one form or another and the number of schools is increasing each year. Little hard data are yet available from these trials to support either claims of its adherents or the disavowals of its detractors.

It appears from preliminary reports, however, that the transition from conventional grading systems to pass-fail is accompanied by a period of adjustment by students during which they may retain their grade-oriented behavior or attempt to take advantage of the new system by loafing. At The University of Michigan, for example, after a year of allowing juniors and seniors to opt one pass-fail course outside their major or required courses, student performance levels were closely related to their general academic abilities as measured by cumulative grade point averages. Obviously the A and B students have little experience in studying for C's, even when releived from the pressure of having to "do well."

Examination Procedures

When the authoritarian college professor of former years made his platform pronouncements, he was speaking Absolute Truth, and his judgment of a student's achievement was accepted without overt questioning. But today students and faculty alike are asking for more information about how to evaluate academic progress. The criteria for grading and the procedures for testing are seen as explicit matters to be identified and discussed as open and empirical problems. A good case can be made for the argument that there is more room for improvement in our evaluation procedures than in any other single aspect of a teacher's task.

Grading criteria

Teachers are faced with two general bases for grading: Absolute and relative standards. The use of the absolute standard requires, in its ideal form, that a teacher formulate his major and minor objectives and then devise some means of telling when a student has achieved them. Normally, he simply compares the student's response with his own judgment about what the student should have said (written) and grades accordingly.

Resistance to grading on the basis of absolute standards (often unreasonable and idiosyncratic) has led to the widespread practice of using relative standards--a student's standing with respect to other members of his class determines his grade. Grading "on the curve" presumes that usually a class will contain a representative sample of students and that the performance of themiddle range of students can serve to define the 'C', or average, grade. A teacher who assigns grades in this way has to have in mind some ideal grade distribution, and schemes of various kinds--some rather elaborate--are workedout to fit students' performance measures to whatever distribution is sought.

No fully satisfactory method of grading has yet been found; the best policy is probably a compromise between relative and absolute methods. Setting up clear standards of proficiency, with latitude for modification as indicated by general aptitude tests or other criteria, is likely to prove most acceptable to all concerned. In large courses made up of representative groups of students, it is probably best to have an approximate grade distribution as a controlling standard. (Milholland, 1964)

Objective examinations

Glaciers melt butthe slow momentum of academic change means that new instructors should be prepared to spend many hours putting together objective examinations or grading essay tests.

The construction of objective tests and their evaluation as measuring instruments have become a technical specialty and these pages can in no way be considered a test maker's manual. The present summary simply highlights again the necessary involvement of the teacher in establishing the internal consistency between instructional objectives, teaching procedures, and methods of evaluation. Vague statements of good instructional intentions cannot be tested unambiguously. In order to evaluate students during a course, the instructor must set forth his immediate objective, that is, a statement of what the student should be able to do as a consequence of his learning. "Although most tests only sample the present competence of a student, good test items provide some prediction of how well the student might perform at a later date or in a different situation....Immediate objectives should be chosen to approximate as nearly as possible the long-term goals of the course." (Zinn, 1964)

Several types of objective tests are available to the teacher, the best known of which is the multiple choice test. It has been criticized for measuring only the recognition of factual material, but it is possible to write multiple choice test items and other types which provide reliable measures of a student's ability to understand concepts and apply principles. Testing specialists frequently proclaim that objective items can be constructed to measure most of the course goals normally assessed by the essay examination. The ingenuity of skilled test makersin support of this claim is fair evidence that the evaluation potential of the objective examination is rarely achieved by most teachers.

Some of the less widely known forms of test questions retain the scoring objectivity of the multiple choice format while allowing some of the creative or individualistic response claimed for the essay type. Computer-controlled testing will extend and improve this capability by evaluating the student's ability to ask appropriate questions in problem situations. For example, medical students are given a description of a patient's symptoms and are required to indicate what questions they would ask in making a diagnosis. After being given answers to their questions, the students proceed further toward a final diagnosis.

The essay exam

The evaluation of thinking, creativity, and understanding is usually made with the essay examination, in which the student is graded on how well we can organize information and express opinions as measured against the considered judgments of his teacher. Long-standing evidence from several sources suggests that the prospect of an essay test leads the student to a pattern of study activities that emphasizes the organization and the interrelationships of facts and principles, whereas the prospect of an objective test leads to memorization of details. These expectations do not, however, relfect an intrinsic difference between the two modes of testing.

The essay examination can range from a series of short, fill-in blanks to a 2-hour or longer writing assignment on a single topic. The weakness in this method of testing is not in the form of the questions or their purpose but, rather, in the low reliability of the scoring by the reader. Many potential troubles are minimized if tests are planned carefully. The teacher should frame questions at a level consistent with that of most students in the class, state the questions with sufficient clarity and detail to insure that each student will work the same problem, specify any restrictions on scope and length of answers, and select questions to provide an adequate sample of the instructional objectives.

Most of the criticism of essay testing concerns the lack of consistency in grading, not only by different readers but also by the single examiner himself. A few general guidelines about the mechanics of reading bluebooks can help to reduce the discrepancy in scoring. Teachers who use essay examinations should, for instance:

(1) Insure that new readers receive supervised practice in scoring tests,

(2) score each paper without knowing who wrote it,

(3) grade all answers to one question at one sitting, and

(4) read the bluebooks in random sequence.

A common practice of many experienced teachers is to judge each essay question analytically by assigning points to various sections. These subscores or marginal comments by the reader can be helpful to the student but may not be necessary steps in reaching the total score. A few studies indicate, however, the teachers generally rely more on "cold-turkey" recognition of quality than on attempts to be analytically systematic.

It is not necessary to draw rigid boundaries between essay and objective examinations. The teacher's problem is to develop whatever methods of testing will sample a student's achievement of complex educational objectives rather than his competence as a memorizer of facts and details. Undue emphasis on a particular technique of testing (or teaching) is a pitfall into which all teachers may slip occasionally.

Oral exams

The ultimate "essay" examination is the face-to-face interview where an examiner assesses the substance of a student's comments as well as any elements of style and personal characteristics which he may judge to be significant. Oral examinations are often used in honors programs where the student is examined by a group of professors from his own institution or from other schools. The prospect and the experience of an oral encounter frequently produce considerable anxiety in the student and as a consequence may result in an inferior display of what he knows and the way he thinks. One of the chronic problems of the oral examination, however, lies with the examiners; this is especially true if their differences of opinion encourage them to role play for one another rather than to focus on the student himself. An oral examination does permit the teacher to pursue in greater depth some aspect of a student's response and to note his personal manner and the various forms of "non-verbal communication" which may be pertinent to his academic achievement and his prospects for further study.

Where an oral examination is used on a regular basis, members of the examining committee should prepare guidelines, study and discuss them, and agree on those to be used before they confront the student. Following the examination committee members should make independent ratings but be free to modify them in the light of the group discussion before reaching, hopefully, a consensus.

Term Papers and Special Projects

For some experienced teachers, the preferred method for formally evaluating students is the term paper, the essay or the special project. Here it is important that students have freedom to select a topic for analysis or at least to choose from a list of topics. The advantage of this freedom is motivational--to permit the student to come as close as possible to working on a document that reflects what he wants to do and that therefore carries with it the advantages that accrue from a positive, aggressive, and interested attack on the problem. Some teachers would rather spend the extra time reading and evaluating these reports than devote considerable man-hours to the preparation of a valid objective examination--at least for intermediate and advanced courses taken by juniors and seniors. If a teacher is professionally competent to offer these courses he is also qualified to evaluate the quality of individual papers on diverse subjects written in various styles.

Diagnostic evaluation of student proficiency at the beginning of the course

Instructors generally pay much more attention to the level of student achievement at the end of the course than they do to where a student stands at the beginning. The fulfillment of formal prerequisite course requirments is no guarantee that a student has achieved the level of content proficiency required to enter a course. It can generally be assumed that for a typical class the bottom 25 percent of the students start out handicapped by inadequate information, skill, knowledge, and the like. These students should be identified and, if conditions permit, remedial or tutorial section or other opportunities should be provided for them. Otherwise many of them will fall farther and farther behind as the course proceeds and in the end will display the familiar signs of frustration: having never been able to keep up with a course they transfer, or fail.

Corrective action by the instructor will probably help the student most when provided at the beginning of a course. It might be quite revealing to a new instructor to give his final examination, on an experimental basis, on the first day of the course. This diagnostic procedure gives the instructor and the students useful information on what topics and areas need special attention.

Academic progress and earning of credit on a proficiency basis

Proficiency testing is well established and widely used in such areas as mathematics and modern language. However, the extension of this principle to other disciplines has been rather limited. To section a large class of entering freshmen in the traditional "History of Western Civilization" on the basis of general scholastic aptitude or high school grades seems a less valid procedure than to section these students on the basis of how much history they have actually learned. The same argument could apply to other areas in which introductory course material is given in high school.

The practice of permitting students to progress through selected parts of the curriculum on a proficiency basis will be more frequently used in the years ahead. It marks a significant advance in using the educational resources that lie in the particular backgrounds and the differential abilities and motivation of the students themselves. And for his part, the teacher will make the distinctive contribution of a subject-matter specialist by defining the appropriate standards for achieving the educational objectives that make his course worthwhile. In many ways this is the ideal educational arrangement; it plays to the strength of the student and to the discipline competence of the teacher and places teaching, *qua* teaching, in proper perspective as the mediating process between a student and a body of knowledge with its supporting values.

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FINDING THE LEVERS: THE ORGANIZATION OF THE PROFESSION

by Lewis Mayhew*

At one time college teachers served in institutions for which presidents, deans, and board members were clearly responsible. A faculty member could usually settle his own problems and influence major decisions by walking a short distance to the president's office, the door to which was, in theory, always open. That day is gone forever. Public institutions in most states and some private institutions have become parts of statewide systems and agencies in which power to make decisions is far from where professors can influence decisions through direct intervention.

PROBLEMS AND ISSUES

Today the college teacher serves in a complex system under complex conditions of on- and off-campus pressures, tensions, obligations, and--paradoxically--both expanded power and restricted freedom. Such conditions have created issues and problems which affect his teaching and his functioning in general.

The young professor should understand the reasons for the changed conditions, the issues created and their implications for him, the system of which he is a part, the sources of information and help available to him, and the opportunities he has to influence higher education. He should begin, however, by selecting the kind of institution in which he wishes to serve, deciding how best to know and use its mechanisms and resources, and at least recognizing an academic macrocosm.

Many of the changes and the issues they have created have resulted from the increased enrollment of students and the rapid growth of institutions, both of which have been caused in part by the increased affluence of the nation. In a period of rapid growth many institutions are forced to change their principal functions; for instance, teachers colleges become comprehensive universities; urban universities, set up to serve a local community, must serve an entire state.

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As institutions change their functions, they expect professors to perform different activities and thus provoke a number of tensions. For example, a professor who likes to teach and was rewarded for doing so in a teachers college finds after transferring to a university, that he is expected to do research and to publish, for neither of which has he skill or interest. If he is nonetheless rewarded, those who do research and were recruited for that purpose are resentful. If he is not rewarded, he naturally feels penalized.

As institutions have increasedin size and taken on new functions the academic profession has gained new power and prominence, to both the advantage and disadvantage of college teachers. They are, forinstance, subjected to great temptations by demands made on their time. When Government, corporations, and other institutions offer opportunities for well-compensated consulting work or contract research and when the professor's own institution emphasizes the value of high national visibility for its faculty members, professors are sorely tempted to spend more time off than on campus. They are gratified not only by the financial rewards but also by the satisfaction that comes to the ego from being in demand. But the cost to the professors and to their institutions is high, for the energies that are consumed off campus are not available to students or for institutional responsibilities. It would seem that this problem could be solved by limiting such work to a day a week. But such a solution would not work because the market for academic talent is increasing, and the more professors and institutions respond to the market the greater the demand for their services.

A closely related issue and one with ethical and professional implications for college teachers is the association of institutions of higher education with the military-industrial complex. Some institutions have begun to function more for the welfare of the military and individual corporations than for society at large. Some universities have made their services available to corporations and the military, have spawned new corporations, have given board memberships to industrial leaders who, in turn, have facilitated mutually beneficial arrangements for the university and corporation, and have even allied themselves with powerful political elements for the benefit of one segment of society. Universities have profited from such arrangements. Endowments have increased through wise holding of growth stocks. Military-supported research has helped professors with their work and the proximity of universities to research-based industries has contributed to the welfare of both. But the costs have been high to both professors and institutions. Some contract research has raised an ethical question about war policy. Some contract research has diverted institutional effort from the directions in which it would normally move. And some institutional decisions have been vulnerable to the suspicion that they were made for other than educational purposes. Eventually each faculty member must inform himself of the implications of such arrangements for himself and help chart a reasonable course for his institution.

Together these two issues present the university professor with an intense value conflict. He is attracted by the virtues and rewards of research, scholarship, and publication. Moreover, a teacher often sees his future as closely bound to the recognition he receives from his off-campus colleagues in his discipline as to the institution he serves. At the same time he feels bound by the tradition of a professor as a teacher of the young, a tradition recently reinforced by the strident demands of students that they be heard and served. Like professors generally, he wants to serve students and to earn their respect and love, but he clearly sees the dangers of doing so, especially in large prestige universities. Promotions just do not go rapidly to those whose reputations are based chiefly on teaching and advising students.

In the meantime the professor's conflict is intensified by students' demands for power and influence. Although no one knows the extent to which students' demands for power and influence will go or for how long, their demands must be considered as a significant issue. Some students, concerned about such social malfunctioning as the failure to insure the civil rights of minority groups to reduce poverty, and to end a seemingly unjust war, are disrupting routine on some campuses. There has apparently evolved a loose confederation of radical student groups with central headquarters and considerable communication and cooperation between campuses. The techniques of protest found useful at one place are being imported to another.

Some persons have argued that there is a nationwide conspiracy of students to bring all of higher education to a stop so that it can be rebuilt closer to their own ideals. Faculty members must decide how to respond to militancy. Some appear to have joined in support of what they believe are legitimate demands, while others are cooperating apparently in hopes of using the force generated to press demands of their own. And still others, possibly a majority, see that the efforts of militant students will serve only to attract a backlash against them and all of higher education from the larger society, especially from the political segments. It seems clear that if destructive student protests continue, legislatures will be tempted to reduce support and even pass highly restrictive legislation, which may then lead to an even more militant stand by students.

Professors face a different order of issues in what they see as threats to academic freedom. At one time threats to the freedom of professors seemed to come chiefly from administrators who did not want institutional tranquility disturbed. That time too is long past, but new and more serious threats are coming from off-campus groups and agencies. As the cost of higher education has increased, especially the share provided from taxes, political agencies have felt constrained to scrutinize collegiate operations more closely and to proscribe behavior believed to be not in the public interest. Although teachers may conform generally to public expectations, proscribed behavior makes them feel as though their principles were being sacrificed. They can, however, advance principles so far that they bring about a confrontation with off-campus power. Illustrative is the decision of several faculty members at the University of California to employ, as a guest lecturer in a credit course, a Negro militant who was under judicial review. This sparked a reaction from the governor and legislative leaders and a decision by the board of regents to deny faculty the right to expose youths to a convicted rapist. So the issue was joined, and no easy resolution is possible. Increasingly there will be episodes which professors will regard as legislative or political outrages but which the public will regard as justifiable.

At the same time that the behavior of some professors is being controlled by off-campus agencies, professors are seeking a greater voice in institutional governance even to the extent of hegemony. They are even responding to potential control. Faculty members want not only to decide who their colleagues shall be, what subjects are to be taught, and which students are to be accepted, but also to have a say in who their leaders shall be and how institutional resources shall be expended.

Faculty members believe that the curriculum or subjects to be taught should be their responsibility. Yet pressures from off-campus have begun to limit their exercise of such a power. Senior institutions sometimes directly control curricular content in junior colleges. Statewide coordinating councils attempt to decide which institutions will teach which courses. Accrediting agencies attempt to insure that each institution offers those courses that it believes to be essential. And, or course, the real or imagined requirements of graduate schools determine what 4-year, bachelor's degree-granting institutions offer. These off-campus groups clearly believe that the faculties of an institution or department will not be responsive to the needs of the larger society if they are not controlled, while faculties see such control as an intrusion on their proper rights and responsibilities.

To the extent that faculties succeed in gaining hegemony, to that extent they become professionalized, self-serving examples of syndicalism less and less responsive to the demands of the society they were appointed to serve. The slowness with which British universities have responded to the increasing educational needs and desires of the mass of the British people is in part attributable to the syndicalism of British faculties. Present demands for well-trained faculty members are so great that faculties can insist on almost complete power. But the more power they gain, the greater the possibilities of a significant revulsion in public feeling toward higher education. Indeed in 1968 thoughtful men could maintain that if faculties persisted in seeking hegemony no capable person would consider becoming a college president (there were 400 vacancies that year) and eventually the public would revoke not only thenew but also the traditional rights of faculty members such as tensure and academic freedom.

But college teachers have ways of protecting not only their traditional rights but also themselves against intrusion on their prerogatives, backlash, or retribution. To protect themselves from specialized accrediting agencies, they have created a new organization called the National Commission on Accrediting to monitor those who would monitor others. They can also exert power against the institutions and the state systems through trade unionism.

At one time professors generally felt that their professional image would not allow them to use union techniques of collective bargaining, economic sanctions, and strikes. But, beginning in junior colleges and then spreading to state colleges and universities, a trade union point of view has become more and more acceptable. Even the American Association of University Professors could reason that in some circumstances a strike of professors would not be against the public interest. Now, trade unionism is not necessarily bad. Some administrators have suggested that it would be easier to arrive at work contracts every 3 or 4 years through collective bargaining with a union than to arrive at decisions by consensus as each issue arises. Others believe that governance through cooperation, shared responsibility, or a corporate faculty is still best for a university. In 1968 there was no clear evidence on whether an adversary or a cooperative system of governance would evantially prevail in American higher education. The one clear fact was that each faculty member would be forced to face the issue and to search for ways of resolving it.

At one time a professor's freedom to deal with students was virtually untouched by the courts. Institutions and their faculties were judged to serve in loco parentis and were accorded all of the powers which parents have. They could accept or expel students and were not obliged to give reasons. They could organize courses and require students to take them without allowing students any recourse if they believe that the courses failed to benefit them. Institutions and their faculties still have much of this power, but the courts are becoming interested in relations between students and professors. Students are guaranteed procedural rights as citizens, and institutions are expected to use procedures approximating those used in civil and criminal leitgation in controversy over academic matters. While the courts have not influenced the teacher to the extent that other agencies and forces have, the direction is toward more carefully defined relationships.

One other matter should be mentioned before ending this discussion of issues and problems: the way in which broad educational policy is set in the United States. While the influence of the Feceral Government is strong, no central ministry of education determines policy. That is still established through the interaction of many frequently conflicting and contending groups. Through interlocking systems of committees, commissions, and organizations, higher education expresses its needs and desires. An individual professor who wishes to understand the system thus must learn to operate in this unsystematic system.

COPING WITH THE CONFLICTS

Although these problems and issues affecting the professional life of professors are as yet unsolved or unresolved, there are policies, organizations, and sources of information which can help them understand the issues and cope with the problems.

Of all the new influences on changing the role of professors none is more potent than the new regional and state systems of higher education. In 1957 ten states had developed supra institutional coordinating boards or councils having the general powers to do long-range planning for public higher education, to collect data, and to recommend the location of new programs. By 1967 only ten states did not have such agencies, and while the specific powers assigned vary from state to state, they generally are those just mentioned plus the power to review institutional budgets, to select sites for new campuses, and to approve or disapprove new programs. In one state this last power extends to approval of individual courses.

A first order of business of the coordinating bodies is to create a state master plan for higher education which typically seeks to identify several types of institutions, each limited to a specific purpose. State admissions policies are designed to direct students into appropriate types of institutions. For example, in California the State University is expected to concentrate on graduate and professional education; the state colleges, on upper division and graduate work to the master's degree; and the junior colleges, on lower division work. In Florida there are the state universities, each with an assigned role and scope, and the junior colleges. The importance of these coordinating agencies to an individual professor can be great; but they determine such matters as whether faculty members will be encouraged to do research, whether new programs responsive to local needs can be funded, how large an institution will be allowed to grow, and what powers the administration of a single campus will be allowed to use.

These coordinating bodies were created in part because of the earlier successful experience some states had with regional compacts. The first of these was the Southern Regional Education Board, which has attempted to help southern states meet manpower needs through cooperative development of high-cost programs such as medicine. The New England and Western states have since banded together to form similar enterprises. These boards publish reports, conduct programs for the improvement of various kinds of collegiate education, and assist the states in cooperatively conducting activities beyond the resources of any one state. Private institutions have begun to cooperate in order to enrich programs and to share the expense of particularly high-cost activities. The Great Lakes College Association and the Associated Colleges of the Midwest represent one kind of consortium and the 21 state associations of private colleges another kind. But they all seek to help institutions plan so that there may be no unnecessary duplication of effort which would drain an institutions's resources.

State and regional compacts and coordinating bodies provide a semi-formal structure for higher education, and in their day-to-day decisions they are making higher education policy. But a less formal system also does similar work. The network of organizations and associations, many with headquarters in Washington, D. C., provides information, makes policy statements, and seeks to influence legislation on higher education. There are several types of these, each serving a specific clientele.

Several organizations represent specific sorts of institutions such as junior colleges and prestige graduate institutions. These, as well as the institutions they represent, are affiliated with the American Council on Education. Through publications, conferences, policy statements, and legislative influence the council seeks to represent higher education as reflected in the needs of institutions.

Of generally lesspolitical significance, although of considerable professional significance to individual professors, are the learned societies representing the various subjects of disciplines. It is through the channels of these societies that the marketplace for college teachers frequently operates --or seems to operate. The American Council of Learned Societies is the logical focus for these professional organizations, although it is of limited policy force.

A third sort of organization seeks to represent individuals active in higher education. The American Association for Higher Education, the various organizations of people active in student personnel work, the Association for Institutional Research, and the American Association of University Professors are illustrative. While there is at present no coordinating body for this sort of organization, the officers and professional staffs do work closely together and consult on positions regarding legislation and national educational policy. Through overlapping memberships, interlocking committees, ad hoc committees, and commissions, these associations insure that the national higher education system is responsive to national needs even though it lacks a formal structure.

No reasonable decisions can be made about higher education practice or policy without some reasonably reliable information. Until recently such information was not generally available, and more is still needed. However, this condition is rapidly changing. Institutions have created offices of institutional research which have generated a great deal of information. Largely as a result of efforts of such organizations as the College Entrance Examination Board, the Educational Testing Service, and the American College Testing Program, the information is reported in comparable terms. Several universities have created centers for the study of higher education which conduct research about types of institutions, flow of students, cost of higher education, and the like. Columbia, for example, has created the Institute for Higher Education, which has produced a series of almost forty reports of considerable value to individual professors.

In addition to the information mentioned, there is the work of some four hundred professors of higher education and their graduate students. Since 1955, when higher education as a field of study was recognized, the professors and their students have produced a substantial volume of histories, evaluation studies, case studies, and monographs about higher education. Although much of what is published is superficial or of limited interest, still as the volume increases (as it has each year since 1955), the number of significant works increases at a more rapid rate. Higher education, however, has not yet developed effective bibliographic or abstracting services that can quickly reveal what is known. The American Association for Higher Education does produce an essay on the literature of higher education and a digest of what the periodical press says about the subject; The Chronicle of Higher Education, a newspaper, lists new books, and several universities have created computer systems for collecting information. But the distribution of information about higher education in general is still quite primitive as compared with that in such fields as chemistry and psychology.

Much more readily available to individual professors is information about salaries, fringe benefits, and--strangely enough--the quality of institutions. The American Association of University Professors has in recent years collected and published information on salaries paid at most institutions and its grades of institutions on an AA to F scale. Every other year the National Education Association publishes a report on salaries and compensation, which lists the salaries paid by type of institution and by region. The Association of American Colleges has sponsored and published studies of faculty benefits and a study of compensation for administrators. While these will become dated rather quickly, they do serve as important benchmarks and will beyond doubt be redone from time to time. The American Council on Education has produced a study of the quality of graduate education, which ranks graduate schools by their reputations. The College Entrance Examination Board publishes its Freshman Class Profiles, which reveal the ability of students attending a number of different institutions, and several individual authors have published guides to colleges and universities, which attempt some ranking of them. A notable example is the Comparative Guide to American Colleges, by James Cass and Max Birnbaum. The U. S. Office of Education publishes annually The Education Directory: Part III, Higher Education, which lists accredited institutions and institutions whose credits are accepted on transfer, and the American Council on Education publishes a directory of 4-year colleges and universities and one of junior colleges.

Although the college teaching profession does not generally accept a code of ethics, as does the medical or legal profession, there are several documents which are ethical in character and which help guide some institutional and professorial conduct. Several of the national professional organizations have prepared a joint statement on student rights and freedom. It urges open access to higher education, proclaims the personal worth and dignity of students, argues for the confidentiality of student records, demands freedom of association and a freedom of inquiry and expression and stresses the need for procedural rights of students involved in disciplinary problems. (Joint Statement on Rights and Freedoms of Students, AAUP Bulletin Winter, 1967.) The American Association of University Professors, through a series of policy statements and letters of advice, has demanded the freedom of the scholar to study and teach as he wishes, insisted that tenure contracts be respected, urged that faculty members be accorded rights to determine academic policy, and in general served as guardian of the profession. (Louis Joughin (ed), Academic Freedom and Tenure, Washington, AAUP, 1968.) However, none of these statements gives particular guidance to professors for dealing with the newer features in American higher education and none offers counsel on a situation in which a decision of a state system is contrary to local campus desires. For example, if a local campus decides to appoint a professor but the systemwide head terminates the appointment, what stance should be taken and how? There is no statement on teachers' relationships with a nationwide confederation of radical students such as Students for a Democratic Society. Nor are there statements binding on professors or institutions regarding political action or attempts to influence state and Federal legislation. Some persons argue that professors and institutions should take a stand not only on legislation directly relevant to higher education but on other matters of foreign and domestic policy; others argue that any stand would jeopardize academic freedom. Eventually guidelines must be developed, but for the moment professors are expected to exercise their own judgment in the light of their own consciences.

What has been described thus far are some critical issues affecting professors, some of the dominant characteristics of a national system of higher education which have contributed either to the development of issues or to their resolution; and some sources of information. Now it becomes necessary to ask and answer the question whether the individual professor can or should relate to this complex system. This question leaves the professor in a quandary about whether an individual can in any way affect these vast seemingly impersonal forces and systems.

HOW A PERSON RELATES TO THE COMPLEX

First, it should be observed that a few persons, through their own efforts and through their understanding of campus conditions, seem to have made a considerable difference. A few years ago Jerold Zacharias was able to galvanize professors of physics into undertaking a revision of high school physics courses that resulted in major changes in college physics. Arthur Bestor and a few others did call public attention to the training of public school teachers; their efforts, reinforced by the opinion of such men as James B. Conant, did force schools of education to reexamine and to modify their practices. And organizations, through the thoughts and efforts of their members, have from time to time profoundly affected higher education policy. The American Association of University Professors, through its salary ranking, has helped improve the economic condition of the profession, and the American Association of Higher Education, through the efforts of its Executive Secretary, helped establish the Federal college housing loan program and helped maintain the loan features of the National Defense Education Act. Individuals are not without influence.

Individual professors may even be classified by how they use their influence, but it is most relevant here to classify them as locals or nationals. Locals are those who gain greatest satisfaction from teaching, serving on institutional committees, and generally being highly regarded on their home campuses. Nationals, on the other hand, seek to identify with national groups, involve themselves deeply in off-campus consultation and research, and gain their satisfaction from a national reputation. Now both of these groups are valuable. The national systems could not operate without professors who were willing to ride the air lines and be away from home much of the time. And, of course, a single institution would quickly fail were it not for local professors who "tend store." But each group pays a price. A national may very likely be without high honor on his own campus and may indeed be quite lonely when not on trips. And the local may not receive the advances in rank and salary that he deserves because he has not established a "national" reputation. Quite clearly national professors have the best opportunity to affect broad policy, but local professors can also be influential if they are willing to use some of the tools or techniques available to them.

Increasingly there are conferences, forums, and publications which allow professors (nationals and locals) to speak out about the problems of higher education and occasionally to be heard. The National Conference on Higher Education, which is held each March in Chicago, and its sixty-odd section meetings provide a forum on which professors can express and debate their ideas.

The publication of conference proceedings has become a rather large business; perhaps a third of all books about higher education published in a given year are of this sort. Although much of this material probably goes unread, there is always the chance that a conference paper will become influential. William Arrowsmith, a professor of classics at the University of Texas, at an annual meeting of the American Council on Education, helped focus attention on the poor preparation for teaching that typical graduate programs provide. Professional journals such as the Journal for Higher Education, Liberal Education, or the Educational Record provide outlets for articles. Their editors are constantly searching for thoughtful writing which can contribute to national thinking about higher education. Specific mention should be made of the Chronicle of Higher Education, which digests the content of books and reports in the form of news stories, and a new journal called Change, which will allow individuals to describe innovations that may ultimately change the course of higher education.

Much stress has been placed on the informal network of committees, commissions, and advisory boards. It is through these agencies that individuals can perhaps be most influential, especially if they serve on several at the same time. Influence is accretive, and theperson who in one year serves as president of the American Association for Higher Education, as a member of the advisory committees of the Educational Records Bureau and the Educational Testing Service, as consultant to the American Council on Education and the College Entrance Examination Board, and as a member of a steering committee for several national research projects has an opportunity to present ideas to several different groups and to use the complex knowledge he gains in those groups to reinforce ideas he supports. But how does an individual come to be invited to serve in such capacities?

There is no clear answer except to point out that organizations are constantly searching for people willing to work and to contribute wisdom. Just as effective committee work on a campus leads to increased influence, so effective committee work in national groups leads to more opportunities.

An essential for such activities is a broad view of the fabric of higher education, a view which does not come naturally to graduate students or professors immersed in the details of a single field of study. But increasing opportunities are being offered to young professors to take time off and gain a different perspective. Several of the regional accrediting agencies have created internships in order to develop broad-visioned people who can serve as consultants or examiners for many different institutions. The Phillips Foundation and the American Council on Education have conducted internship programs designed to convert faculty members into administrators. The Danforth Foundation conducts a 3-week workshop each summer for four faculty members from each of 25 institutions. During this period professors have a chance to hear read, and think about the transcendent issues of higher education with apparently considerable value to themselves and their careers. For more than 20 years the North Central Association Study of Liberal Arts Education has also conducted workshops, which have given well over a thousand different professors time and stimulation to think about higher education in the broad sense.

Although state systems cause problems, they serve as a device by which the individual professor can influence higher education. Systems typically conduct much business through inter-college committees which consider faculty salaries, articulation, graduate study, and institutional role and scope. While these committees are generally advisory to the legitimate authority of a board, they nonetheless have the authority that comes from expertise. Boards thus are open to recommendations on professional matters when made by responsible committees composed of faculty members. Somehow the experience of dealing with such a problem as articulation of junior and senior colleges for an entire state helps faculty members to broaden their own perspective and to think in educational rather than disciplinary terms.

Professors may and do gain influence through more direct and personal ways. The academic market is not a completely free market, but it is nonetheless free enough to allow individual professors to bargain with institutions for their services, and in the aggregate this bargaining sets the tone for all of higher education. From 1955 on, well-qualified faculty members have been in short supply, and institutions have reduced teaching loads, increased salaries and fringe benefits, and made greater provisions for research in order to attract and hold professors. While market conditions may change and faculty bargaining may be reduced, this is not likely to happen for several more years at least. Thus, what someone has called academic poker is likely to go on. In academic poker the college instructor obtains an offer from another institution and then uses it as a bargaining element to improve his own situation locally. The player must realize, of course, that there is a limit to the number of bluffs he can run, but he probably can manage one or two. So widespread has been the development of bargaining that faculty stability on many campuses has been shaken as instructors take posts knowing that if they don't like things they can and will move elsewhere. Individual efforts have made the American college teacher a member of a truly mobile profession.

The collective version of this bargaining, of course, is reflected in various kinds of adversary relationships between faculty and administration. Several states have provided for collective bargaining by either faculty senates or a union, and such bargaining seems likely to cover most interests in higher education, from salaries to selection of administrators. In states having complex systems such as New York, a statewide faculty senate or a state-based union can thus allow faculty members to develop great power and to influence state policy. This is not to suggest that collective bargaining is either a good or a bad thing. As is indicated earlier, there is a belief that shared responsibility and cooperative governance have much to commend them. But adversary bargaining is a recognized form and is available if faculty members wish to use it. Apparently it does not deny professional ethics or image as was originally believed.

This entire section has sought to establish the fact that individual professors must interact with an increasingly complicated system of higher education. Consider the professor of biology who teaches principles validated by a National Science Foundation grant in a classroom built in part by funds supplied by the National Institutes of Health. His course was approved by a statewide coordinating council and is offered to students supported by a National Defense Education Act loan. These students live in residence halls built with a college housing loan allocated to the institution by a state committee designated by the governor but whose members were recommended by a citizens committee for higher education. The professor's tenure appointment is protected by legislation suggested by the American Association of University Professors, and his rights to decide on the tenure appointment of other professors are contained in a constitution suggested by the American Association for Higher Education. His students will be admitted to college on the basis of tests prepared by a large independent test bureau, and their eligibility for scholarship funds established by a different organization. He has more Negro students than ever before because of pressure brought to bear by a Black Student Union, which is loosely related to the National Students for a Democratic Society. Next week the professor must vote whether he wishes a statewide senate or the American Federation of Teachers to represent him in collective bargaining. His own salary is tied to a possible decision his institution must make on a new medical school recommended by a regional compact and supported by his state coordinating council for higher education. On all of these as well as many other matters, the professor can affect the outcome. The question is, will he?

Suggestions for Further Reading

Cowles Guide to Graduate Schools New York: Cowles Education Corporation, 1968. Presents Alphabetic listing of institutions offering graduate work and the subjects and degrees offered.

Otis A. Singletary and Jane P. Newman, eds, American Universities and Colleges (10 ed.). Washington: American Council on Education, 1968. Contains detailed information on 4-year institutions of higher education, covering student characteristics, administrative structure, and programs and degrees offered.

Theodore Caplow and Reece J. McGee, The Academic Marketplace New York: Doubleday, 1965. Contains valuable descriptions of how individuals obtain positions, move, and establish their reputations.

The Efficiency of Freedom Baltimore: The John Hopkins Press, 1959. Reports on the various intrusions of state government into the control of institutions and suggests guidelines and criteria by which the public interests can be served and institutional freedoms preserved.

Louis Joughin, ed., Academic Freedom and Tenure: A handbook of the American Association of University Professors Madison: University of Wisconsin Press, 1969. Presents basic documents and a number of letters and memoranda elucidating emerging ethical principles and principles regarding the reduction of controversy.

W. John Minter The Individual and the System Boulder: Western Interstate Commission for Higher Education, 1967. Contains papers on recent student protests against the impersonality of higher education and a number of suggestions by which individuals and institutions can be responsive to student demands and desires.

John S. Brubacher, Bases for Policy in Higher Education New York: McGraw-Hill Book Co., 1965. Attempts to show how higher education policy has historically been established and discusses some policy issues which must be resolved in the near future.

M. M. Chambers, The Colleges and the Courts 1962-1966. Danville, Ill.: Interstate Printers and Publishers, Inc., 1967. This is one of a series of books summarizing and commenting on court decisions impinging on higher education.

David G. Brown *The Mobile Professors* Washington: American Council on Education, 1967. Describes the characteristics of the marketplace for college teachers and how both individuals and institutions seek to use the marketplace. Concludes that the academic marketplace is far from a free market.

Daniel S. Greenberg, *The Politics of Pure Science* New York: The New American Library, 1967. Shows how Federal involvement in university scientific research came about during World War II and how present scientific research policy is established.

James Ridgeway, *The Closed Corporation*: *American Universities in Crisis*.New York: Random House, 1968. Attempts to show the rapproachement between big business, big military, big government, and big universities and how these are developing policies at times antithetical to the needs of the larger society. It probably is slightly overdrawn but close enough to reality to support the subtitle.

Frank H. Bowles, *The Refounding of the College Board, 1948-1963*. New York, College Entrance Examination Board, 1967. Reveals the emergence of major powers in the establishment of higher educational policy; includes a complicated array of para-educational agencies and organizations. It also reveals the considerable prophetic powers of the author.

Mark H. Ingraham, *The Outer Fringe* Madison: The University of Wisconsin Press, 1965. Summarizes the frequency and type of fringe benefits available to faculty in American colleges and universities.

________________and Francis P. King, *The Mirror of Brass.* Madison: The University of Wisconsin Press, 1968. Presents norms of salaries and perquisites provided first, second, and third echelon collegiate administrators.

Arthur G. Coons, *Crises in California Higher Education*. Los Angeles: The Ward Ritchie Press, 1968. Describes in detail the development of the California master plan for higher education and the evolution of the coordinating council as a supra-institutional agency reveals in a case study the growing impingement of off-campus forces on individual faculty members.

James Cass and Max Birnbaum, *Comparative Guide to American Colleges.* New York: Harper & Row, 1968. Lists all accredited 4-year colleges alphabetically and comments on campus life, academic environment, and kinds of students attracted.

FINDING THE LEVERS

The Folkways and Mores of Campus Governance and How to Make Them Work

by Harold Hodgkinson*

INTRODUCTION

Young faculty members, or those preparing for the academic life, must face the fact that the first year or two in the first teaching position is often fraught with doubts, tensions, and insecurities. These are sometimes accidental, sometimes an intentional initiation into the rite of passage system. A large number of young faculty find themselves in a position which is not quite as advertised, and if it were not for the enormous mobility of faculty from campus to campus many more would leave the teaching profession.

Much of the difficulty of young faculty comes from a sense of ignorance and powerlessness, of not knowing how the campus in which they find themselves really works, of having no good sources of information and little power or influence in the academic and administrative arenas. Although the new faculty member has graduated from the role of student he finds that once again he is playing the subordinate role to his "peers," who will judge, along with the administration, his fitness for tenure and promotions. As a newly minted professional he often finds that he teaches the courses that no one else wants to teach, has difficulty in getting on important committees but is automatically selected for participation on the Joint Faculty-Student Committee to Consider the Renaming of the Gymnasium, acts as advisor to freshmen but not often to seniors and graduate students, and does not go to lunch with the dean or department chairman. He is told that his promotions and tenure will depend on his teaching, but of course research must not be forgotten. He is to be popular with his students, but not too popular, especially with the best students.

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It is not that people give him devious answers, but that they give him contradictory ones, as complex institutions are almost always internally inconsistent. In that he is near the bottom of the academic hierarchy, he will get more inconsistent answers than those who have been there longer. People will inform him of procedures to be followed, but the information will be in mimeographed form as it is for new students. He will not know whom to see to get things done, and, more important, he will not know whom not to see. (Avoiding the ineffectual person in the hierarchy is one mark of the seasoned professional.)

This short paper attempts to present some of the things to look for and watch out for, so that meaningful participation in campus governance might come earlier for the new academic, and he might come to feel that the campus is a piece of wondrous machinery that works for him rather than on him.

HOW INVOLVED SHOULD A NEW FACULTY MEMBER GET?

Although many experienced college and university faculty take the position that getting involved in campus politics will leave no time for teaching and research, it is nevertheless true that even teaching and research activities require a campus structure for acquiring the things that are necessary. Those who remove themselves from the battlefield entirely should therefore feel little remorse if the system does not meet their needs. On the otherhand, it is true that educational politics is the major specialization of some faculty members who get little accomplished in any other areas. For some, a committee meeting has all the fascination of a gaming table at Reno--they become addicted to the roll of the dice and the changes in fortune as the game proceeds. Governance has ceased being a means and has become an end in itself. Outside of these extremes of zero and absolute involvement in governance, a person needs some criteria, some "institutional superego" or gyroscope that will allow him to be selective in the areas in which he will take part. One of the best of these criteria is that of enlightened self-interest. If the task offered is one in which theperson thinks he can be productive and in which he will learn from participation, then he probably ought to get involved. But how can one decide in advance whether or not participation on a given committee or activity will be meaningful? Information about how the campus works is necesssry for this decision, and here are some ways such information can be acquired.

THE "WORKING HISTORY"

One thing that new faculty can put to good use is a short history of the institution, one not based on the catalog description but on who was responsible for the program as it currently exists. Who are the people who have gotten changes through, and who are those who have the power to impede change? The "working history" can usually be worked out quite accurately by keeping one's ears open at social affairs and at the lunch tables. Often, department and committee sessions will provide the major shape of the working history. The new teacher will also find that he spends more time with students than with his colleagues, and students can be a very good source for the working history, although their interpretation of who accomplished what, and who the "good guys" were (are are) may be at variance with the interpretations of faculty and administration. The new faculty member needs to see the institution as the sum total of the efforts of others, some of whom have left or died, some of whom are very much still on the scene. With a good working history even a first-year teacher can begin to estimate how people and groups will respond to situations and _why_ they do.

TYPES OF CAMPUSES

One problem with new faculty in higher education is that they tend to compare their first campus as a teacher with the institution in which they did their graduate work (often the only campus they remember well). This often means that they miss the teaching potential of their present campus. _Every_ campus presents a slightly different set of assets and liabilities as far as the new teacher is concerned--the trick is to find out what they are as soon as possible. One way to look at campus types is to consider what students come to the institution thinking they "need," compared to what the institution wants to do to them ("press"). Some of the major variations are listed below in abbreviated form.

Vocational: The students come primarily because they wish to get certified for a job which is important to them. Studying is a means toward this end. The faculty see their major job as certifying that graduates are fit to enter these vocations.

Collegiate: The students come largely to make social contacts which will be useful to them in later life and to have a good time. Fraternities, sororities, and active social programs typify these campuses. The faculty are fairly relaxed in their maintenance of standards. Alumni groups have considerable influence.

Intellectual: Students here tend to be interested in learning either for its own sake or in order to become a permanent member of the academic community. Their approach to intellect is a highly structured one. The structure is imposed largely by the faculty, who provide very heavy reading assignments and frequent tests. (Indeed, faculty are often judged by the length of their reading lists.)

Expressive: Almost a derivative of the intellectual campus, the expressive also stresses the intellect, but as a vehicle for personal expression and communication. Intellect begins with the personality and works out, whereas in intellectual campuses the student prostrates himself before the discipline. The creative arts are usually strong at expressive institutions; science teaching is excellent at intellectual ones. In expressive campuses the faculty tend to see their task as a Socratic one, to elicit the best the student has to offer. The faculty often play a counseling role in their teaching.

Protective: A number of American colleges see their chief role as that of an umbrella, protecting the innocent student from the harsh rains of society. Social life is heavily regulated, and the living environment is seen as an important part of what the college teaches. Adults on these campuses often become what Waller calls "Museums of Virtue"--exhibiting values and behavior which are no longer commonly practiced but which it is felt college students should be exposed to. Students often come seeking certainty and closure with regard to questions of philosophy and values, while students at expressive institutions seem to enjoy playing with ambiguity and paradox.

These five types of "campus culture" are of course not pure--any campus will show elements of all five. But if one looks carefully, there will probably be evidence of a central tendency or major "push" on any campus in one or two of these five directions. There are obvious conflicts in a new teacher who shares expressive values and finds himself teacher on a "protective" campus, and such a teacher might be well advised to keep his commitments about teaching to himself until he has scouted the ground. If his teaching style comes quickly to attract the "potential activist" students, he may get branded with a reputation which will be difficult to live with. (In many campuses, new faculty are classified rather quickly by colleagues and administration, and these first impressions are hard to alter.) There are also departmental variations along these cultural lines--often one will find a very intellectual psychology or history department right next to a very expressive humanities or literature department. Moreover within departments there are often factions which resemble our five cultures, along with the "pure" and "applied" distinctions and the "micro" and "macro" orientations. Often the new faculty member unthinkingly commits himself to one of these factions by an offhand remark and later finds that his place in the department is already decided.

TALL OR FLAT ORGANIZATION

At the "tall" end of the scale one finds the institution which operates as a pyramid in terms of power and accountability, with the president and board at the top controlling everything. Little authority is delegated to other groups, communication is carefully controlled at levels of the hierarchy, and people tend to operate according to explicit patterns ("by the book"). At the "flat" end of the scale one finds groups of faculty and students as the core units of organization, usually in some departmental form, with the administration operating as a linkage between them. There are few administrative levels of status, and groupings of persons shift quite easily as their concerns shift. Behavior tends to be worked out on the spot instead of being looked up in the manual. Clearly almost all colleges and universities fall between these extremes, but one point should be worth mentioning: Who really makes decisions here? Are faculty actions definite, or are they recommendations to the administration? Who speaks for the faculty, the whole body or a representative assembly like a senate or an executive committee? To whom do they speak? Are departmental chairmen elected by colleagues or appointed by administration? How is a new president selected? Who chairs faculty meetings and why? How is the membership of major faculty and all-campus committees established? Is the dean the faculty's man or the president's man, or both? One good way to ascertain the answers to these questions is to isolate a common activity and follow its development--for example, follow all the steps necessary for a new course to become part of the instructional program of your department.

COMMUNICATION SYSTEMS

On every campus there is a formal system of communication. Itis made visible in the line-staff organization chart, or it can be derived in descending order from the officials listed in the catalog. Then there is another system that may be more important. It is usually more horizontal, more direct, more functional than the formal one. It may involve secretaries, assistants to major officers, clerks, buildings and grounds staff, nurses, food service people, and many others who have no place in the formal communication structure. Yet they are often the people who must be seen in order to get things done or to get accurate information. The complexity of this system may vary with size; on small campuses the network usually covers all departments, while on large campuses it may center in the department or the administrative subunits. It generally runs on necessity, not form; information that must be transmitted will be transmitted in this way even though there is no formal channel. Departmental secretaries are almost always involved, as are the secretaries and assistants to the major administrators. The system works in much the same way as the system of sidewalks on the campus--the concrete sections are like the formal structure, the downtrodden grass where people make their own pathways is like the informal one.

If the eyes and ears are kept open, it is quite easy to locate the important people in this system. One advantage of this approach is that the information is easier to evaluate--it tends to be either obvious gossip or obviously accurate. For example, if a new teacher really wanted to find out how he will be promoted and evaluated, and on what grounds, he may find that some faculty colleagues will support the rhetoric in the faculty handbook, whereas the registrar, senior students, or perhaps a long-term secretary might be a better source. (Certainly the registrar's office would be a good source of information on grading practices, for example--the young faculty member whose grades are "too high" will often find this fact held against him. The registrar often knows whether the department marks "on the curve" or not and whether this particular department assesses teaching quality by grading, student reaations, or some other means.) In many institutions the rating of teaching effectiveness is done almost purely on word-of-mouth reputation and social contacts. In fact, there are occasional references to situations in which a young faculty member was given tenure because of the social acceptability of his wife, and some in which tenure was denied because of her lack of social acceptability. These, however, are extremely rare. For some reasons yet unfathomed, it is not easy for the new teacher to get good information on what is expected of him. He is to be a good teacher, yes, but what is considered to be good teaching? Often one can pick up this information through the informal communication system unobtrusively, while consulting one's senior colleagues in the department might be interpreted as being overly "pushy." The distinction between junior and senior faculty membership is often more important than one would expect, and like any initiation rite, the element of mystery is present from the initiate's point of view. But he obviously should have these implicit criteria made as explicit as possible, and if the formal communication system will not do the job, he must look elsewhere.

COMMITTEES

Of all the areas in which academics can waste time, the committee is probably the most famous, and deservedly so. (However, the time actually wasted is usually doubled by the time spent in complaining about how much time is wasted on committees.) There are usually at least two levels of committee status: The "major league" committees like the senate and executive committees which appear to have some role in the formulation and implementation of academic policy and programs; and the "minor league" ones (often with students as members) in such areas as landscaping, selecting the homecoming queen, and new food-service menus. Clearly, an infinite number of minor league committees are possible on any campus. The new instructor most likely will be on a minor, not a major, committee. He also has the problem of knowing which committee to go to when he wants some action taken on his behalf. On both problems, the following list of questions might be useful:

Who are the committee members supposed to represent--themselves, or a larger body?

Does this committee establish, revise, review, or implement policy, or does it recommend policies to other groups?

Are the responsibilities of the committee written down?

How often does the committee meet, and why?

Who votes?

How does one get on the committee, and who selects the chairman?

How is the agenda established?

To whom do the committee's decisions go, and for what type of action?

What has the committee accomplished in the past 2 or 3 years?

"Committee service" is often one criterion for promotion, but this is usually interpreted as meaning "willingness" to serve on committees rather than the total dedication. To be crass, if one avoids committee work, it might be held against him, but if one becomes fiercely dedicated to committee work, it may not be a mark in his favor. (Indeed, few if any institutions have ratings of quality of faculty committee participation!) One should probably undertake a first committee assignment with good humor, seeing the task as a good source of information about the institution and as a way of tapping into communication, if not decision-making, networks. One problem to avoid is the temptation of chairmen to load up the "new" committee member with clerical busywork. By being overly eager to serve, the new faculty member can find himself so loaded down with minor departmental and committee tasks thathis teaching and other major responsibilities suffer. When this happens, one should call a halt to further committee burdens as gracefully as possible.

Some committees find that their activities are largely for the purpose of justifying the existence of the committee. To find out whether or not to present a problem to a given committee, a young teacher might be wise to determine the "flow" of the committee, by finding a previous matter similar to the one he is concerned with and finding out how the committee responded to it and what the outcome was. It may be that a person in the administration can get action faster than the committee. This is not necessarily "going around end," as most committee responsibilities are rather loosely defined, and if you are out of line, the administrator will usually send you to the proper place for your request or proposal. Departmental chairmen can also serve in this role. For such matters as the approval of a new course, the department chairman in some places can handle the matter virtually by himself; in other places the process of getting a new course approved is incredibly tedious and may take an entire year and cause some hard feelings. It might be well to test the wind on this issue before revolutionizing the entire curriculum in the first year. Curriculum change is often the slowest type of change (a rule of thumb is that it takes about five times as long to change the curriculum as it does to fire the football coach).

DEVELOPING THE ART OF SELECTIVE NEGLIGENCE

It is sad but true that in American society there are something like 5,000 laws which are on the books but have never been enforced. Similarly, when the new faculty member looks at the mass of rules and regulations he must abide by, he tends to forget that the same thing is generally true with colleges and universities--if one obeyed all the rules he would never get anything done. There is some "give" in all social systems, and just as some students quickly learn that Professor Smith doesn't grade down for late papers (and thus gets most of his papers after the "deadline"), so some registrars insist that all instructors must have their grades in by December 23, yet faculty grades come in weeks later. It is a good idea not to experiment with one's own future by handing grades in late, but one can easily find out what rules and responsibilities are important. Again, one easy way to find out how things work is to follow a typical event, like a stock of wood floating down a curving stream. Considering our simile, try ordering some sticks of wood called pencils. If it can be done in an unobtrusive way, trace the various stages in the meeting of your request through the recording and distribution systems. Compare, then, the way most "experienced" faculty get pencils to how they are supposed to get pencils, and you will have a good idea of the limits of selective negligency system. It generally operates in some of the following:

The taking of attendance and reporting of absences.
The ordering of supplies.
The increasing or decreasing of class size.
The formulating of criteria for determining a "full load."
The number of hours to be spent weekly with advisees.
The reporting of all changes in class location and time of meeting.
The number of examinations and papers required.

One should not assume, however, that these areas actually function on the selective negligence principle. One should first ascertain what others do, in as unobtrusive a way as possible. Perhaps the greatest problem faced by the new teacher in terms of selective negligence is in the classroom itself, in the form of the "introduction to the field" or "broad survey" course. His training has pointed him to the virtues of specialized knowledge, and now he finds himself in charge, not of a seminar on Thomas Wentworth Higginson and the Secret Six, but of Introduction to American History, Leif Ericsson to the Present. By definition, he must neglect much of the specialized knowledge he has acquired in one small compartment of this course and must try to "cover" the whole thing. In departments in which there is a common syllabus for these introductory courses, the problem is not so great. But where the teacher is on his own, he would do well to remember what he was like when he took his first course in the area. Instead of seeing the survey course as an insult to his duty to specialization, he might turn the problem around--what material is really important enough to be worth _including_?

THE NEW FACULTY MEMBER AND ACTIVISM

Depending on the campus, considerable pressure may be brought to bear on the new faculty member to join in various protests, active or passive, against campus, state, or national policies. This pressure may come from students, outsiders, and faculty colleagues. The issues may range from protesting the Vietnam war to liberalizing student social regulations to striking for higher salaries. Participation in such matters is of course a matter for individual conscience after a careful investigation of the issues. But one should be aware of who one's allies are, what the consequences of participation are likely to be, and what the chances are for success. This is important, as students have been known to play one faculty member or faction off against another and even to "con" them into participating. Administrators, on the other hand, can be very convincing on the virtues of non-participation. The new instructor is vulnerable to student appeals for participation, as he is teaching-oriented and wants to be liked and respected by his students, particularly as a man who "has a conscience." But student movements fluctuate with great speed, and the students who lead them fluctuate from place to place with even greater speed. If one does get involved, it is wise to be reasonably certain that one's allies will be around long enough to see the matter through. It is easier for a protesting student to get into another college than it is for the new instructor to get another position.

Some of these principles apply to intra-faculty matters as well. If a faculty member is attempting to develop a following in order to completely revise the policies and structures of the faculty and administration, it would be well to make sure that that gentleman is not planning to leave for another position the following year. It is wise to get involved with people who plan to stay and see the work through, whether it be an adhoc committee, a professional association, a labor union, or whatever. Before joining any organization which is against the "established order," a wise person makes sure _for himself_ that the established order is incapable of dealing with the given problem rather than accepts someone else's word for it. To remain as independent and rational as possible in these pressure-filled situations is to act in the best traditions of academic freedom. The demagogue has no place in a professional faculty.

CONCLUSION

The thesis of this paper is that full participation of new faculty into the affairs of the campus should not be delayed until 3 years of service have been acquired. (In most situations about 3 or 4 days of careful looking and listening will provide enough information for meaningful participation.) It is not that new faculty don't push the levers, the problem is that they often push the wrong ones. It is almost impossible to generalize on what the right ones are, but the pitfalls which have been discussed here have a certain universal quality. Perhaps the most important quality in governance is mental set. If the new faculty member were to say on the way to work each morning "The entire structure of this campus is deployed for only one reason--to assist *me* in the all-important work I alone can do in teaching students," a self-fulfilling prophecy might be created and the campus might begin to work in this way. If it did, everyone would certainly be better off.

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